

# AMERICAN GAS ASSOCIATION MONTHLY



Vol. VI

No. 1

JANUARY, 1924

**A**NOTHER reform which is urgent in our fiscal system is the abolition of the right to issue tax-exempt securities. The existing system not only permits a large amount of the wealth of the Nation to escape its just burden but acts as a continual stimulant to municipal extravagance. This should be prohibited by constitutional amendment. All the wealth of the Nation ought to contribute its fair share to the expenses of the Nation. ■

President COOLIDGE  
in his Message



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FOR STATEMENTS AND OPINIONS CONTAINED IN PAPERS AND DISCUSSIONS  
APPEARING HEREIN, THE ASSOCIATION DOES NOT HOLD ITSELF RESPONSIBLE

## AMERICAN GAS ASSOCIATION MONTHLY

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# *American Gas Association Monthly*

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## *Happy New Year*

**I**T is our sincere wish and hope that the year 1924 may bring to all of our members and to everyone in this great industry of ours not only success and accomplishment in all their efforts but a great share of happiness and contentment. If, at its end, we can say that we have been of greater assistance to them, have been able to cooperate more closely than before, have been of greater service to them, then we will be able to say that 1924 has indeed been a happy and fruitful one for us.



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## Our Industry\*

OSCAR H. FOGG, Secretary-Manager, American Gas Association

IT WILL BE WELL for me to define my subject. The gas industry is a big term. I might better speak of it as the manufactured gas industry and so confine myself to the business of converting solid fuels—coal, coke and oil—into gaseous fuel and supplying in that form energy for heating, lighting and power purposes. In short, the transformation of those raw materials into an invisible servant that in countless ways ministers daily to the health and comfort and the industrial efficiency of the nation.

Even with that limitation I shall not feel in the least cramped, for the manufactured gas industry in the United States serves 9,000,000 customers in 4,600 separate communities, or, to put it in another way, approximately 50,000,000 of the country's population are directly dependent upon manufactured gas service for one purpose or another.

Unless he pauses to consider it, the average citizen thinks of the gas business much the same as he does of any other business, unless, perhaps, he regards it as a little more fortunate than most because he thinks of it as a monopoly. But there is a fundamental difference

and it is in the interest of a clearer understanding that I endeavor to point out that you gentlemen, for the most part, are free to conduct and expand your business with only such limitations as the Constitution of the United States and public policy may impose or the state corporation laws provide. With so-called unregulated business it is largely a matter of your conscience and your sense of business ethics. That is the American way and it is a good way.

Your chief overlord is that inexorable law of supply and demand, which regulates every business effort. Perhaps that is a sweeping statement but I make it so purposely, the more pointedly to emphasize the fact that this monopoly of ours, this opulent octopus that the professional champion of the people delights to depict, is utterly powerless to abuse or to exploit the people, for within the ordinary meaning of the word there is no such thing as profit in the gas business. We may earn what the courts have decreed to be a fair rate of return upon the fair value of the property used and useful in the public service and that

\*An address delivered before "Town Criers," Providence, R. I.

rate of return is occasionally as high as, but seldom exceeds, 8 per cent.

Do we mix air with our gas and collect for the pure article? Are our meters the devilish prevaricators that your jokester makes them out to be? The answer is "no" and no, first, because I know of no industry more keenly alive than ours to the value of clean, honest business methods, giving value for value, and I know of no industry that prizes more highly the good will and confidence of the public which it serves. And I say no, secondly, because even if we were the most unenlightened, befuddled, moth-eaten business men in Christendom and wanted to do all these absurd things, there are in practically every state of the Union, state regulatory commissions with jurisdiction over the rates which we may charge, the securities which we may issue, the quality of the commodity which we supply and the character of service which we render.

And back of these stands another power which no industry, no group, nor party may flout—its name is Public Opinion and it is the spirit of our industry to deserve its friendly approbation.

There is a link, at least in name, between the town criers and the industry which I represent. In the old days when gas was supplied to people by contract, to be used for lighting purposes, from sunset to a specified hour at night, we too, had our town criers. Their job was to search out gas users who were burning gas over the time limit mentioned in the contract. Announcing their approach with loud rappings on the sidewalk, the criers would promptly turn off the gas at the street if their command of "Gas Lights Out" was not immediately obeyed. If the party was to go on, the occupants of the house would then resort to candles or oil lamps. The gas business of those days was a monopoly. But the

onrush of civilization decreed the quick passing of the crier and the substitution of an instrument of measurement which has enabled the gas user from that day to this to have gas service on tap any hour of the day or night. I speak of the gas meter and I am proud to emphasize the fact that the original mechanical principles adopted in 1844 for the correct measurement of gas are still employed. Hundreds of inventors have endeavored to get something better, but they have improved on details only. This, because the gas meter is one of the most accurate instruments of measurement in common use.

This industry of ours is something over a century old. In its commercial infancy, manufactured gas was thought of only as an illuminant. It was expected to and eventually did supplant the candle and the oil lamp and its use marked the first really great step in the science of modern illumination, but it was not until many years after its successful introduction as an illuminant that its application to other uses was undertaken. Today manufactured gas promises developments in the realm of domestic and industrial heating that I believe will completely revolutionize the methods of utilizing fuel in this country.

We used to talk about "A Thousand Uses for Gas." That was only a few years ago, when the possibilities of applying gas to industrial fuel uses were beginning to loom as more than infant size. Today a complete and accurate tabulation of the separate and distinct uses for gas will probably approximate five thousand. We have come to get a more comprehensive idea of its versatility.

It is always stimulating to my imagination to recall that a good many years ago, more in a spirit of playfulness than anything else, we hatched from the egg

a brood of chicks in the oven of an ordinary gas range by maintaining a constant temperature of  $103^{\circ}$  for a period of twenty-one days; while just about that time high-powered burners were installed in the crematory of a Western cemetery and the gas flame was employed to seal the book. Far apart, these two, and significant only in that they define, at least symbolically, the field that lies between, for the useful application of gaseous fuel in the ramifications of our industrial and domestic life.

Within the limits of available supply, gas has become the almost universal kitchen fuel and in constantly growing measure are its applications increasing in the great industrial world—in the generation of steam, the melting and heat treatment of metals, drying, hardening, finishing and other processes which, fully classified, mount into the thousands.

But great as the increase has been in the use of gas for industrial heating applications, our scientists and engineers tell us that today we stand on the threshold of an era of development vaster than any ever visualized before. We are told that the next ten years will witness greater advances toward a day of fuel efficiency than have taken place during the century that has passed. An amazing picture of the future is painted, showing fuel consumers in great cities getting all their heat units through gas pipes, and looking back in horror to the day when raw coal was burned with all the evils of smoke, ashes, unnecessary waste and needless labor.

Scientists agree that the burning of raw coal is an economic crime. The public is fast awakening to this fact by reason of the tremendous damage to health and property caused by the smoke nuisance, not to mention rising coal prices, labor troubles and transportation difficulties, all of which have a dollars-

and-cents significance to the American people. The relation of smoke to laundry bills affords an illuminating example of the tribute exacted from a people who are victims of inefficient fuel practices. A recent survey shows that Pittsburgh pays annually for its laundry work \$411,000 more than Boston; \$352,000 more than Buffalo, \$469,000 more than Cleveland, and \$592,000 more than Philadelphia. Pittsburgh's laundry bill is \$3.12 per capita each year. In Chicago it is \$3.25, Cincinnati \$3.14, and St. Louis \$3.06. In Philadelphia, where smokeless fuel is used, the per capita laundry bill is only \$2.01.

Now there are more important things than the nation's wash bill, but these are significant figures. They are of more than merely statistical interest, for they disclose a condition of importance not only from the standpoint of industrial economy and efficiency, but they bear in an important way upon the public health. The Mellon Institute of Research, in reporting the result of an investigation of the smoke nuisance in Pittsburgh conducted under the auspices of the University of Pittsburgh, states that more persons are devitalized, disabled and poisoned by the impurities contained in smoke-polluted air than by the noxious ingredients in food and water. The same Mellon Institute has reported that the annual loss in Pittsburgh from smoke amounts to not less than \$10,000,000, or an amount nearly as large as the city's total yearly bill for domestic fuel. While I have taken the city of Pittsburgh, which is an extreme illustration because it is notorious for the smoke nuisance, what is true there is in some degree true in every other industrial center in this country where smoke-producing solid fuel is burned in large volume.

I know that it is very likely that some

of my friends in the retail coal business will speak of me feelingly as a nut. I do not blame them, for we men in the gas business have not until recently come to a realization of what will ultimately be the demand for gaseous fuel to supplant solid fuels, in the interest of conservation, economy and health, and what I am speaking of today as probabilities are the things which ten years ago I would have dismissed as less than visionary, so I can fully appreciate how they may sound to others now.

It is not pleasant to confess to such a group as this that ours used to be spoken of as a non-advertising business. That is synonymous with non-progressive. Perhaps there was a time when that was in some degree deserved, but I want to qualify even that admission by asking you to remember that there was also a time when there was questioned the propriety of expenditures of money for advertising purposes by public utilities. Indeed, ever since the creation of state regulatory bodies, there was for a time reluctance, and there is still reluctance in some sections of the country, to admit that a public utility had anything to advertise or had any right to spend money for such purposes. It is the public utility men themselves who have dispelled that fallacy and we point with some pride to the fact that within three years our appropriations for advertising have more than doubled and in our association work we are constantly broadening the field of educational advertising and directing a growing effort toward public information. More than 90 per cent of such advertising expenditures goes for the purchase of local newspaper advertising space and the money stays right at home in the communities served by the utility company.

But there is another field of advertising in which we play an often unappreci-

ated part. Let me call it Community Advertising because of its relation to the community and the public utility business. Look carefully into this essential relationship and you will discover that public utilities *are* community advertising. They are exactly that, for without adequate public utility service, Providence would not and could not be a successful advertisable community.

I maintain that public utility service, as it is good or bad, advertises a community's character and does it more eloquently than billboards or magazine "spreads" or any other similar medium. This is so obvious that you can almost reduce it to a formula; as a community's public utility service is good or bad, so in like degree is that community a comfortable and convenient and satisfactory (or the contrary) place in which to live and do business. So, in the final analysis, the town criers of Providence and the public utility companies of Providence are interested in precisely the same thing, namely, the growth, prosperity and the good name of Providence. On this mutual relationship is built the success of every city of importance in the United States.

For years the communist and the radical have loudly clamored for public ownership of the public utility companies. And, strange to say, this is exactly what is happening—only, mark you, it has come about in a way that was never dreamed of by the socialists. Within the span of a few years, with no more agitation or theory than could be put in a soap box, the public has begun taking over ownership by simply buying it. During the year 1922, and in the first eight months of 1923, the manufactured gas companies sold 550,000 shares of stock to 107,000 customers. Combination gas and electric companies sold 700,000 shares to 120,000 custom-



ers. The total was 1,250,000 shares of stock sold to 227,000 purchasers, the total money raised in this manner for the extension and improvement of service amounting to \$106,836,000.

That is real public ownership—the kind of ownership that is solidly supporting the principles of the private management of industry. Incidentally, hundreds of thousands of customer owners of our securities are now learning the fundamentals of safe investment and the promoters of fake stock ventures are suffering accordingly.

Indeed, the public ownership movement ranks next to the liberty bond campaigns in educating the American public to be financially wise in investment matters. Is it any wonder, then, that the bankers are whole-heartedly in favor of this movement and that instead of losing business they are gaining it in large volume because of an improved public understanding of the essentials of a safe investment?

What part does your gas company play in the growth and the development and in the prosperity of your community? The Providence Gas Company celebrates its' seventy-fifth birthday day after tomorrow. What is the record of seventy-five years? Back in 1848, when the company started business, yours was a city of 40,000 inhabitants. At the end of one-half of the gas company's active life, that is, after thirty-seven years' service, Providence had become a city of 125,000 inhabitants. The annual sales of your company had reached the total of 319,279,200 cubic feet or 2,550 cubic feet per capita. Today the population of the area supplied by your gas company is 310,000 and its annual sales 2,600,000,000 cubic feet, or 8,390 cubic feet per capita, an increase of 229 per cent. The gas company has not only kept pace with the demand but it has anticipated

and prepared itself in advance to supply that demand. It has made its product so necessary to your citizens that it is used in increasing volume year after year, but what is equally important, its mains and services have reached out into your suburbs, to the outlying sections of your city, encouraging the population of those sections and putting the best that the art had developed at the disposal of your homes and factories. They did not have to wait for that service to be established after a long and torturous delay—those conveniences and facilities had been planned for and thought for in advance and were waiting and ready when needed. Capital had been risked—the investment had been made—and so it has been all over these United States. Public utilities have been the pioneers in community development and community prosperity.

I know it is not well to let tradition play a too absorbing part. In this young nation of ours we are inclined to detach ourselves from the past—progress demands it—and initiative and forwardness are our dominant traits. But we in the gas business cling to a tradition that we hold worth while. In the largest plant in this country there are burning today the fires that were lighted one hundred years ago. I mean that literally. In the 1850's there was placed in a container a mass of the burning coal that had been lighted thirty years before in the works of the old New York Gas Light Company and on the eve of the abandonment of this old plant the live coals were transported to a new plant in another section of the city, and again in 1906 this act was repeated and the fires which burn today in the great plant of the Astoria Light, Heat and Power Company are those that were started by the same flame a century ago.

Back of the men on the operating floor

down at your gas works, back of the fellows who come around to interview your gas meter every month, back of the thousands of loyal men and women who are putting the spirit of coal into 9,000,000 American homes, there stands a fine tradition. Interruption of service

is practically unknown. Short of conditions bordering on calamity, it has never happened. The gas business is a 24-hour, 365¼-day industry, winter and summer, bad times or good times. It is the tradition of constant, never-failing service. The fires must never go out.



## • Educational Work at Minneapolis

**F**OR THE PAST two years or so the Minneapolis Gas Light Company has carried on some very interesting educational work among its employees. In fact, some features of this effort are worthy of special mention.

Once a month the foremen and heads of departments meet for luncheon with the superintendents and officers of the company. This little organization is aptly called the "Half-Way Club." At these meetings departmental ailments are discussed as well as the policies of the company. Through these gatherings a personal contact, between individuals who would rarely see each other, is established, which has proved most beneficial to all concerned. The company assumes half of the expenses of these meetings, the members assuming the balance.

In addition to the meetings of this Half-Way Club, during the winter the superintendent conducts a night class at

the works which is attended by all department heads. These classes have resulted in a more intimate understanding of gas manufacture and distribution.

The result, as a whole, of this educational effort has been to impart a thorough understanding of the inside of the business and a clearer comprehension of the other fellow's job so that the relation of each individual's position to the whole structure is clear. The hearty cooperation given this work by all concerned, from the officers down, has been most gratifying.

There can be no doubt but that such work as this being done by the Minneapolis Gas Light Company will result in not only a more efficient and enthusiastic organization within, but it will ultimately have far-reaching results in establishing with the company's consumers a friendlier spirit, more cordial relations and a clearer understanding by them of the company's service.





## Oscar H. Fogg Resigns as Secretary-Manager



**T**HE EXECUTIVE BOARD of the American Gas Association announces the resignation, effective December 31, 1923, of Colonel Oscar H. Fogg, who has served with signal success as its Secretary-Manager since May, 1919. Colonel Fogg will be succeeded by Alexander Forward, of Richmond, Virginia, who has resigned his position as a member of the State Corporation Commission of that Commonwealth to assume his new duties in the manufactured gas industry.

While it has been known for some

months that the resignation of Colonel Fogg as Secretary-Manager had been tendered, to become effective at the end of this year, official notice has been deferred until there could be announced the name of his successor. This step had been contemplated by Colonel Fogg for something more than a year and there was entrusted to a special committee of the Executive Board the task of selecting some one to carry on the work which, in the past five years, has grown tremendously in importance and value

to the manufactured gas industry. The Committee's report recommending the appointment of Mr. Forward was unanimously approved by the Executive Board, which also adopted the following minute:

"This Board has received with deep regret, but with full appreciation of the circumstances attending its presentation, the resignation of Colonel Oscar H. Fogg, Secretary-Manager.

"So pronounced was the desire to secure Colonel Fogg for the position of Secretary-Manager that the place was held for several months after the general organization of the Association, awaiting his return from service in the American Expeditionary Forces, where he had made an exceptionally meritorious and conspicuous record.

"In accepting the appointment he stated that the opportunities open to him in several large business enterprises were of such a nature that he felt he could not serve for a longer period than two years. His deep interest, however, in thoroughly organizing the work entrusted to him, coupled with the earnest solicitation of the members of the Executive Board, resulted in extending the period to more than twice the time originally contemplated. He now retires to accept such a business opportunity, after a full and frank discussion of the subject with members of this Board and with their entire concurrence in the belief that he is taking the wise and proper course, in justice to his own future.

"The details of study and experience embraced in Colonel Fogg's career, following the termination of his early scholastic training in various educational institutions, will be found recorded in the annals of the gas industry. They constituted, at the time of his entry upon the work of the Association,

a remarkable preparation for the task he then undertook. When his selection was announced, it was stated by those clothed with authority to engage him, that he had been chosen because he was believed to be a man equipped with a thorough knowledge of all aspects of the industry; and, speaking for its Executive Board, they added with confidence, 'It is with the satisfaction of a duty fully performed that our choice is presented to the gas industry as a whole.'

"The results have amply justified their action. The universal recognition that has been accorded Colonel Fogg's broad conception of the character and purpose of the Association's manifold activities and the manner in which its affairs have been directed, constitute in itself a testimonial of which any man might well be proud. His exceptional executive ability, tact, and fine sense of proportion have been constantly reflected in the work of the Headquarters Staff, in the activities of the Sections, and in the encouragement of cooperation with allied bodies. The American Gas Association today, due in no small degree to his unwearied efforts, occupies a commanding position.

"In the passing of the years, the period through which he has served is not a long time, but it is amply long to have afforded occasion for many mistakes, disastrous errors of judgment and misconceptions of the relation of the position to the Association and to the industry. It can be said of Colonel Fogg that a critical survey of his administration fails to disclose any act of his that did otherwise than advance the interests of the Association, enhance its standing before the public and realize in full measure the high hopes of all who have had a part in its inception and development.

"Added to the notable results thus achieved has been the influence exerted through those personal qualities that have won for him not only the respect but the affectionate regard of the entire membership of the Executive Board and of large numbers engaged throughout the industry with whom he has come in close contact in the eventful years during which he has held the place from which he now retires.

"In formally accepting Colonel Fogg's resignation as Secretary-Manager, we spread upon our Minutes this recognition of ability, fidelity and public service, and extend to him in his new field of duty our best wishes for his continued happiness and prosperity."

Colonel Fogg leaves his present post to become President and General Manager of the Baltimore Gas Appliance Company, with headquarters at Baltimore.

+ + +

## Alexander Forward



**M**R. FORWARD's earlier years were spent in newspaper work in various cities of Virginia. In 1914, he was appointed secretary to the then incoming Governor, Henry Carter Stuart, and served in that capacity during the four-

year term. This included the earlier days of the war, when the Governor's office, to a large extent, administered the war activities.

Effective February 1, 1918, Governor Stuart appointed Mr. Forward a member of the commission which regulates the public utilities of Virginia, and also administers the securities or blue sky law, the examination of State banks, the regulation of insurance companies, and the assessment of railway and all other utility property for taxation, State and local. Shortly thereafter, Mr. Forward secured leave of absence for war service and became director of relief supplies for the Balkan States, as an officer of the commission charged with relief work in Serbia, Roumania, Greece, Albania, Montenegro and Bosnia. He returned to duty with the commission in July, 1919.

Mr. Forward's work in the field of regulation was recognized by his successive election by unanimous vote as second vice-president and first vice-president of the National Association of Railway and Utilities Commissioners. He was chairman of the executive committee of that organization, and chairman also of a special committee to revise its constitution. His engagement with the American Gas Association prevented his election to the presidency of

the regulatory commissioners at the December convention at Miami.

On November 6, 1923, Mr. Forward was reelected a member of the Virginia Commission by a majority of 88,742, over an independent opponent. This is said to be the largest majority ever given a candidate for office in the history of that state.

Announcing his resignation to Governor E. Lee Trinkle of Virginia, Mr. Forward's letter said in part:

"It is with deep regret I take this step. It has been my privilege to serve the commonwealth in a time when constructive effort was demanded. I have loved my work, and no one ever served a better or fairer people. For their unfailing support and confidence, I am profoundly grateful. I leave only to continue the service of the public in a wider field."

Expressing regret at Mr. Forward's retirement from the corporation commission, Governor Trinkle, in writing his acceptance of the resignation, said:

"I feel that the loss to the State in your leaving its service is a great blow. You have rendered a splendid service—efficient, fair and most praiseworthy. Virginia hates to see you leave. An efficient public servant is a great asset to the state and the loss of one who has played the part you have is a grave one."

\* \* \*

*"You can't afford to have your employees known by numbers."*

COLONEL JOHN GRIBBEL  
at Mid-Winter Meeting of  
Pennsylvania Gas Association

## Increased Interest in Utility Financial News

**F**INANCIAL MAGAZINES and newspapers with financial columns are devoting large attention to the utility business as a result of the improved earnings of utility companies.

The financial department of the New York Evening American now publishes a magazine called "Independent." In the October issue under the title "Public Utility Men Investors Should Know," tribute is paid to Samuel Insull, H. M. Byllesby, Henry L. Doherty, Charles A. Stone, Edwin S. Webster, George E. Hardy, W. E. Creed and Geo. B. Cortel-you.

The New York Herald is now trying out an innovation in the way of a column of financial news entitled "Public Utilities." In one of the early issues of this newspaper, the news item issued from these Headquarters dealing with the sales of gas and gas appliances for last year has given prominent notice.

The Journal of Commerce of Chicago is also devoting considerable attention to public utility news in a column specifically for that purpose.

Several newspapers are following suit rapidly and it is predicted that within another year every large metropolitan newspaper will lay aside a definite proportion of its news space for the most recent facts regarding utility financing and recent offerings of bonds and stocks.

Of interest in connection with this development is the report made at our recent convention by Mr. Charles A.

Munroe, Chairman of the Customers Ownership Committee. The following news article describing the report was issued to a large number of newspapers and magazines with the result that it was given wide and valuable publicity:

"Statistics of 187 gas companies showed that during 1922 and in the first eight months of 1923, the manufactured gas companies sold 550,708 shares of stock to 107,094 purchasers. Combination gas and electric companies sold 700,932 shares to 120,076 purchasers. The total was 1,251,640 shares of stock to 227,170 purchasers—practically all of them residents of the communities served by the companies—the aggregate money received through this financing totaling \$106,836,000.

"The new capital obtained by the gas companies through the sale of securities to customers was secured at the lowest cost known in gas company financing," said the report of the committee. "The sale of junior securities has greatly improved the financial structure and has greatly strengthened the senior securities. In addition, it has had a tremendous effect in producing better public relations. The committee believes the sale of securities to customers is the most satisfactory way of acquainting those served with the problems of the business and through the new relationship of customer and company not only is a better understanding being brought about, but many difficulties are being avoided."

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## Affiliated Association Notes

### Empire State Gas & Electric Association

The second meeting of the Managing Committee of the Gas Section of the Empire State Gas & Electric Association was held on November 16 in the offices of the Syracuse Lighting Company, Syracuse, N. Y. The following attended: Mr. W. H. Earle, Chairman, Messrs. Lucena, Smith, Atwood, Ribley, Ingwall, Sykes, Crowell and Carpenter. The committee tentatively agreed that the annual meeting of the Section should be held in Binghamton, N. Y., on March 6 and 7, starting with a noon luncheon on the 6th, the first session to follow immediately after the luncheon and without adjourning to any other place. Preparations for the presentation of a most interesting program at this annual meeting are well under way.

### Wisconsin Utilities Association

At a meeting of the Executive Committee of the Wisconsin Utilities Association held on November 26 in Milwaukee, it was decided to hold their Convention in the Hotel Pfister, Milwaukee, Wisconsin, on April 17-18, 1924.

### Pacific Coast Gas Association

The Pacific Coast Gas Association has, since its Convention in September, been actively engaged in organizing for the coming year. Its officers during the year 1924 are:

President, H. R. Basford, San Francisco, Calif.

Vice-President, E. L. Hall, Portland, Oregon.

Secretary-Treasurer, W. M. Henderson, San Francisco, Calif.

The Association's activities are divided along lines very similar to the American Gas Association and parallel committees exist in all the major departments of the gas industry.

The committee organization at present consists of:

Meetings Committee, Chairman, E. L. Hall

Arrangements Committee, Chairman, N. R. McKee

Technical Committee, Chairman, W. S. Yard

Commercial Committee, Chairman, L. F. Galbraith

Accounting Committee, Chairman, C. W. Platt

Public Relations Committee, Chairman, D. C. Ray

Publicity Committee, Chairman, F. S. Myrtle

Editor, Experience, Chairman, J. C. Clements

Plans are now under way for the mid-year meetings, the first to be held early in January in San Francisco; the spring meeting in Seattle, Wash., and a late summer meeting at Los Angeles. The Convention for 1924 is scheduled for September at Santa Barbara, Calif.

### Pennsylvania Gas Association

The members of the Pennsylvania Gas Association turned out in goodly number to their Mid-Year Meeting held at the Hotel Bethlehem, Bethlehem, Pa., on December 13.

A very interesting and well balanced program was presented by the President, Grier Hersh, and consisted of the following addresses:

"Standardization of Meters," Walton Forstall; "Education of Gas Company Employees," L. R. Dutton; "The American Gas Association," Louis Stotz; "Advertising—How It Functions—What It Accomplishes," Karl Bloomingdale, an address which might have been appropriately called "Reminiscences of the Gas Business" by Colonel John Gribbel, an address by the Hon. John Lomney Stewart, "The Public Utility Man's Place in the Activities of His Community," Philip H. Gadsden, and "Publicity Not Propaganda," Major J. S. S. Richardson. The members and their friends attending the meeting were guests at luncheon of the Allentown-Bethlehem Gas Company.



## The Third Annual Gas Meter Short Course

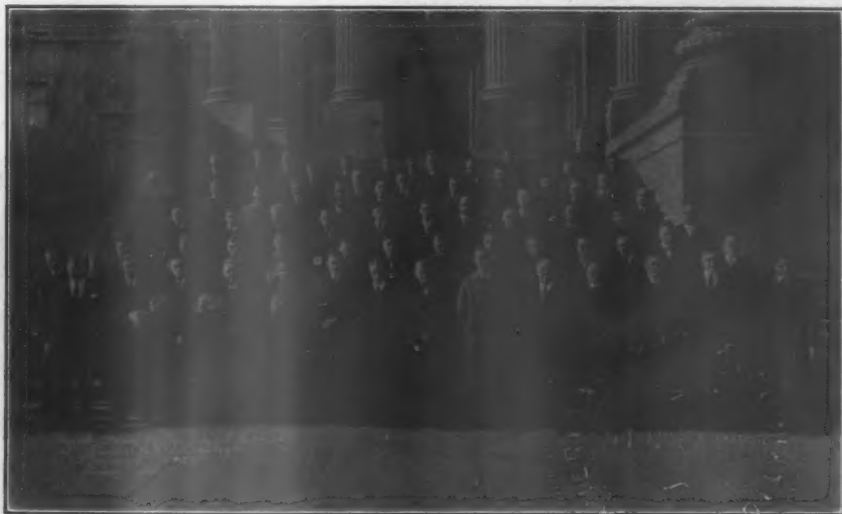
**E**IGHTY-seven men from ten different states registered in this course conducted jointly by the Engineering Extension Department of the Iowa State College and the Iowa District Gas Association and a large percentage of them attended all the sessions. The large increase in attendance over that of the two previous courses is ample testimony to the widespread interest that has developed in these gas meter short courses. The enthusiasm shown is sufficient evidence that the training of gas men by means of courses of this nature is of great value. It seems probable that this method of instructing gas company employees, which had its inception at Ames only two years ago, will spread rapidly, and develop into a position of great importance in the gas industry. Similar courses are already under consideration in the states of Illinois, New York, Virginia and North Carolina.

It was the general opinion of the men who had attended all three courses that the discussions of the papers at this course were far better than those of either of the first two courses. Many odd local practices in meter shops in the small companies cropped out in the course of the various discussions, and methods used in the different larger shops were compared and discussed and it is believed that a great deal was accomplished in

eliminating bad meter shop practices, and standardizing meter shop methods. The active participation in the discussions by the representatives of the various meter companies and of others with long and varied experience with gas meter practice was a big factor in making the discussions so helpful to the men from the smaller gas companies.

The prover and repair bench facilities were adequate to give all necessary instruction and together with the capable instruction staff made this part of the program thoroughly satisfactory.

The banquet held in the large dining room of the Sheldon Munn Hotel was attended by nearly all the men attending the course as well as by the members of the Council of the Iowa District Gas Association. Mr. J. H. Ainsworth, Manager of the Public Service Co., Ames, Iowa, had charge of this affair, and an excellent menu, music by the State College Quartet, and singing by the bunch were followed by speeches by members of the Council and by members of the Short Course Committee and prominent gas men attending the course. Mr. Sterrett, Secretary of the Iowa District Gas Association, was toastmaster and in this capacity he contributed largely toward making the banquet a very enjoyable affair.



## A Plan Worthy of Attention and Adoption

**L**AST MONTH in the *Wall Street Journal* there appeared a very fine advertisement of the Lackawanna Railroad. It was a large ad, spreading itself over four columns and was fourteen inches deep.

At the top of the space a picture showed several passengers in a regular railroad coach and a conductor collecting tickets. In the lower left-hand corner under the picture of a strikingly pretty girl was printed the following:

Says Phoebe Snow—

“In some car aisles

Beside the miles

A railroad ticket

Pays for smiles

From guards polite,

A custom quite

The rule on the Road of Anthracite.”

The main reading matter, which was judiciously placed in the body of the space and printed in heavy bold face type, told

of the road's definite and specific policy of seeking the good will and cooperation of the people it served; of the appreciation of customers when they knew the company was doing everything possible to give the best possible service and of keeping the public informed of plans of the road in any large undertaking planned to advance the efficiency of the service and how reports of progress and business were issued for public consumption at regular stated intervals.

If a railroad company can do this sort of thing without leaving a bad taste in the mouth of its customers, without lowering its dignity or losing any of its prestige, then so can a gas company,—and should.

Most assuredly a good idea. Stop in the office sometime and ask to see a copy of the advertisement and then discuss it with your publicity and advertising men.

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*“For successful association results its members should accentuate duties and obligations rather than rights and privileges.”*

GRIER HERSH, President  
Pennsylvania Gas Association

## Report of Rate Fundamentals Committee

R. A. CARTER, Chairman, New York, N. Y.

THE PAST YEAR has been a period of continued progress in the clarification of the law as to the right of public utility investors to receive effective judicial protection from confiscatory statutes and rate regulations. Several important decisions of the United States Supreme Court and of various state courts have given added vitality to the constitutional guarantees and have marked progress in resolving some of the controversial questions as to the bases of the valuation of public utility property.

Perhaps more fully than ever before, the past year has brought home to the investors in and managers of public-service enterprises, a realization of the far-reaching importance of valuation questions. The constitutional assurance that private property may not be taken for or devoted to public uses without just compensation becomes illusory and ineffectual, unless the constitutional guaranty carries assurance that the value of such property will be determined at an adequate sum, and that the owners will be allowed to earn an adequate return upon such value. Before the courts and regulatory commissions of the country, in the litigation involving the valuation and earning power of public utility projects, there is being fought out the vital issue whether private property and private enterprise still have rights which political agitators are bound to respect. The fundamental importance of these

valuation questions to all public utility investors has been recognized during the past year as never before; and the industry has escaped the danger, which once menaced it, through treating these valuation questions casually and permitting them to be decided adversely because of inadequate presentation.

The past year has witnessed progress in another aspect of the situation: There is developing a greater sense of unity, common interest, and cooperation, between the different groups of public-service enterprises, in the handling of these valuation questions. Heretofore, each group has seemed to think it could serve its own interests best by "playing a lone hand" on these questions. The steam railroads, the telephone companies, the power and lighting group, and even the gas industry, have each been inclined to feel that their own problems and interests were unique, different and apart from those of other public-service enterprises. Valuation questions in each industry were therefore dealt with in a separate and detached way, and divergences of contention and policies developed which have proved harmful to the common interest.

Now it is coming to be realized that the bases of valuation of property devoted to the public service constitute a problem common to all public-service industries, and that the interests of one industry are the interests of all. Rules

and principles of valuation determined in railroad or telephone cases become the controlling precedents in gas and electric rate cases, and *vice versa*. A sound ruling in any railroad or public utility case is of common benefit to all investors in public-service enterprises; and an unsound ruling, due to inadequate preparation or presentation or to some fancied local exigency, becomes a common menace to every investor throughout the country. Every unsound decision, in any state, or as to any company, has infinite potentialities of general harm. Each public utility company, its executives and counsel, are thus the custodians of the interests of the entire industry during this formative stage of the law.

During the past year, the foundations have been soundly laid for a great deal of salutary cooperation along these lines, and better team-work may confidently be expected, in the years immediately ahead. This is a most opportune development, because a crucial stage has been reached in the determination of the fundamentals of the valuation of private property devoted to the public use. Controversial issues long held in abeyance by the courts and by the Interstate Commerce Commission now press squarely for a decision which cannot longer be delayed or avoided. The whole future of private investment in public-service enterprises, and so of continued private ownership and operation of these enterprises, depends on the decisions which are just ahead.

The decision of the United States Supreme Court in the *Southwestern Bell Telephone Company* case, and in several of the decisions which followed it, gave promise of constructive and broad-minded approach to the more detailed questions which press for adjudication. If coupled with rulings economically sound as to

the rate of return and as to the agitators' claims for large deductions for speculative and non-existent elements, the Supreme Court's adherence to the concept of present value will place the utility industries of the country on a basis enabling them to extend and improve their service to an extent impossible under the conditions of the past decade. On the other hand, some regulatory bodies have tentatively adopted bases of valuation which, if persisted in by the commission and sustained by the courts, would imperil the security of every public utility investment in the United States.

The work of your committee, along lines of comprehensive statement and clarification of rate fundamentals, cannot be brought to completion until decisions have been rendered upon many of the mooted questions, involved in cases now on their way to final adjudication. It has been the privilege of your committee from time to time to render aid and counsel to member companies, along lines of seeing to it that the issues in some of these cases were soundly developed and adequately supported in the evidence.

Your committee has made some progress in the formation of a report embodying a summarized statement or syllabus, which may be of aid to member companies in clarification of the sound fundamentals of the subject. This comprehensive report we shall hope to submit to the executive board of the association before the next annual meeting, and to the association itself at that meeting.

Construction work along similar lines is being undertaken by public-spirited organizations, notably by the Council on Public Utility Law of the American Bar Association and possibly later by the newly-organized American Law Institute. The activity and aid of such ex-

pert and disinterested collaborators in this field is, of course, most gratifying.

### RECOMMENDATIONS

#### *We Respectfully Recommend*

1. That the Committee on Rate Fun-

damentals and its work be continued; and

2. That the Committee be authorized to cooperate, in any way which may seem advisable and prove acceptable, with the Council on Public Utility Law of the American Bar Association and with any other public organizations working in this field of law.



## Telling the Architect

The American Gas Association is carrying four pages in the current edition of Sweets Catalogue containing information and data concerning gas service which will be of interest and help to architects and builders.

In these four pages we point out to the architect the various uses of gas in residences, hotels, office and loft buildings; the necessity for adequate piping and its cost; how to calculate pipe layout, worked out in detail with accompanying charts and tables; selection and installation of gas appliances, etc.

A suggestion is made to the sales manager of every gas company that he have a special representative call on every architect and builder in his territory and present him with a copy of this information. Reprints will be furnished by Association Headquarters at five cents a copy. Here is an additional opportunity for a close personal contact between the gas company and the man in whose power it lies to extend the use of gas in the home, in factories and other large buildings.



## Why Don't You Answer?

**T**HE AMERICAN GAS ASSOCIATION has a Committee on Education of Gas Company Employees. The purpose for which the committee was created by the executive board of the American Gas Association is indicated in the name of it.

The committee wants information at this moment above everything else. Before presuming to discuss what should be done about the education of employees in the gas industry, it wants to know what has been done and what is now being done.

To that end, the committee wrote in September to upwards of 100 representative members of the American Gas Association, asking for certain information. Two months later (in November) a follow-up letter went to all of the original list who had not answered. As this is written, December 7, the two requests of more than 100 gas companies have yielded only 38 answers.

The committee asked only for answers to these simple questions: (1) What educational work are you doing or have you done among your employees? (2) With what result? (3) What educational means do you consider most effective, class work, lectures, class work combined with home study, correspondence, etc.? (4) To what employees or class of employees is it desirable to impart further knowledge of the business and what class of knowledge or information should be imparted?

Among the 38 answers only 21 reported educational programs worth mentioning. Of these practically all are making use of talks to employees in meetings held with more or less regularity. Most of them also promote, more or less systematically, the circulation of printed

matter, use of the library and study of technical and trade publications. Less than half a dozen companies have reported educational programs of a comprehensive and intensive character—programs which appear to be followed through from year's end to year's end like any other branch of company work.

The nearest approach to unanimity was on the question as to the class of employees that should receive most educational attention. Nearly all said that those in contact with the public should receive most attention.

The Committee on Education of Gas Company Employees wants much more information than it has secured so far. It wishes the other 60 odd companies would answer its letters of September and November. It also extends to the entire membership of the American Gas Association a request for an expression on the four questions that were asked of the 100.

Every member of the association is invited to lend a hand. This is no perfunctory invitation. It is "from the heart out." It is sent broadcast to the entire industry because every American Gas Association member *can* help the committee and because the committee *needs* your help. This committee has undertaken a big job. The more you look at it—and around it and over it and under it—the bigger it looms. Consider the significance of the subject—Education of Gas Company Employees.

If the interests of an industry may be gauged by what the leaders in it say, then one of the chief interests of the gas industry must be Public Relations. At the last A. G. A. Convention there were addresses, papers or discussions—or all three—on Public Relations, in practically



all sessions of the convention, both general and sectional. Analysis of these addresses, papers and discussions discloses that, in the composite judgment of the industry, the main factors in achieving good Public Relations are the following:

1. Good gas service to customers.
2. Intelligence and courtesy persistently applied at all points of contact between the gas company and its customers.
3. Public (customer) understanding of the gas company's functions, problems and practices, and especially the reason why of them.

Obviously the way these factors work for the gas company in bettering Public Relations will depend much upon the company's employees—entirely in the case of Factor No. 2 and very largely in that of the others. If employees are quick and expert in their respective jobs, the company's service (Factor No. 1) will be bettered. If they are well informed on the functions, problems and practices of the company, as a whole, and in all of its departments (Factor No. 3) the day of public understanding and the consequences thereof will be immensely advanced. The importance of intelligent and *well informed*, as well as courteous, employees at all points of contact with customers, speaks for itself.

This was the "net" of discussion when the A. G. A. executive board and the advisory council met in Atlantic City

early last summer. Thereupon the executive board created a committee to study the subject, calling it the Committee on Education of Gas Company Employees, which President Brown appointed a little later and which President Klumpp has re-appointed. The membership of the committee is as follows:

E. H. Bauer, Mgr. Worcester Gas Light Co., Worcester, Mass.

R. F. Bonsall, Asst. Secy. Consolidated Gas, Electric Light & Power Co., Baltimore, Md.

J. A. Brown, Gas Engineer, Hodenpyl, Hardy & Co., Jackson, Mich.

J. S. DeHart, Jr. Pres. Isbell-Porter Co., 46 Bridge St., Newark, N. J.

L. R. Dutton, Mgr. Philadelphia Suburban Co., Jenkintown, Pa.

H. O. Loebell, V. P. Combustion Utilities Corp., 10 Bridge St., New York City, N. Y.

A. G. Schroeder, Purchasing Agt. Grand Rapids Gas Light Co., Grand Rapids, Mich.

G. H. Waring, V. P. American Public Utilities Co., Grand Rapids, Mich.

Z. E. Watson, Public Service Gas Co., Newark, N. J.

P. S. Young, V. P. Public Service Gas Co., Newark, N. J.

B. J. Mullaney, Mgr. Industrial and Public Relations, The Peoples Gas Light & Coke Co., Chicago, Chairman.

Again: If you have had a letter from the committee and have not answered, please write. If you have had no letter from the committee, write anyhow and express yourself on the four questions which the committee has on its mind.

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## Fifty-four Years' Service



**T**HAT IS THE RECORD of William Judson Clark, Vice-President of the Westchester Lighting Company, Mt. Vernon, N. Y. Fifty-four years of continuous service in the gas industry alone is something to be proud of, but when these years are full to overflowing of achievement, as they are in this case, the occasion is one which merits a special mark of recognition.

So thought Mr. Clark's fellow friends and officers of the Westchester Lighting Company and the Consolidated Gas Company of New York. And so Mr. Clark

found himself the guest of honor at a testimonial dinner given him on December 4th at the Commodore Hotel, New York City. As a slight token of the esteem and love in which he is held by all those who know him, he was presented with a platinum and gold watch with chain and pencil.

Fifty-four years. That means that it was in 1869 that Mr. Clark went to work as an office boy for the Brooklyn Gas Company. Picture it—there were no telephones, no trolley cars, no bridge across the East River and all street trans-

portation was done by horse-drawn vehicles. A day's trip from Brooklyn to Harlem and back via the Second Avenue horse-car line took about half of the daylight hours. Coney Island was a dreary waste of sand dunes and the Flatbush section of Brooklyn was a dense woods.

There, in the Remsen Street office, the reorganization plans for the Laclede Gas Light Company were drawn up, as were those for the reorganization of the Baltimore Company. One of the first offers ever made of the Tessie DeMotay water gas process was made to some Brooklyn financiers in this office and Mr. Clark copied the drawings and specifications. While the sale was not effected, when it was installed in about 1876 by the Municipal Gas Company in New York City, a competitor of the New York Gas Light Company, Mr. Clark was in the latter company's office.

Mr. Clark while with the Brooklyn Company became secretary to the president and then went with the New York Gas Light Company being secretary of that company when the consolidation of the New York companies took place in 1884. In 1892 he left the downtown office of the Consolidated Gas Company to assume the duties of superintendent of its Harlem Branch with its 55,000 accounts. In 1898, when the so-called "gas war" broke out in Manhattan, this Branch had 104,000 accounts. At this time Mr. Clark again went to the downtown office and organized and directed the canvassing force during the eighteen months of this very intense competition.

His next work was the organization of the General Fuel Appliance Department and the inauguration of the first corps of women demonstrators to go out into the field and teach the hygienic and economical use of gas for cooking. Mr. Clark was the originator and the first

editor of *Gas Logic* as well as the executive of the Municipal Lighting Company when it installed the first street gas arc lamps carrying a cluster of inverted incandescent mantles.

So, in a short way, can be traced Mr. Clark's work in the gas industry. But with all his arduous duties, he has always had time to take up many other activities without the industry. In his home town, New Rochelle, he has been most active on the board of governors of the New Rochelle Hospital Association and the Visiting Nurses Association as well as many other charities.

He has also been active in its civic life, being a member of the Westchester County Chamber of Commerce and the New Rochelle Chamber of Commerce.

With all this, Mr. Clark has had time to become one of the best known toastmasters hereabouts as well as in the industry. Nor is his pen idle. As a cartoonist and a writer of both prose and poetry, he has made his mark. And always he remains the genial, smiling "W. J."

Within the industry, his work in the associations has been most active. Past Chairman of the Commercial Section of the American Gas Institute; one of the "original 13" founders of the National Commercial Gas Association and its President for three years; honorary member of the New Jersey Gas Association; charter member of the Illuminating Engineering society; chairman of several committees of the American Gas Association; Vice-Chairman of the New York Companies' Section of the N. E. L. A. are but a few of these activities.

This but touches on the high lights of his work during those fifty-four years. They have been full to overflowing and make a record that not many men have surpassed.

## Denver Now Has 5,545 New Stockholders

**T**HE ENTIRE PERSONNEL of the Public Service Company of Colorado put over their ten-day customer ownership campaign with a bang, selling 16,593 shares of stock to 5,545 new stockholders. This was an average purchase by each new shareholder of 2.99 shares of stock.

Every employee of the company, from Clare N. Stannard, Charles A. Semrad and Victor L. Board down to the trouble shooter in the gas plant and even to the office boy in the head office in Denver sold stock, and even if there were one or two instances where no sales of stock were made, there is now scarcely a person in those sections of the state of Colorado served by the various divisions of the company who does not know the story of the company.

Before the campaign was started, employee mass meetings were held in Denver, Boulder (Colorado) and Cheyenne (Wyoming), and those employees who were not in touch with actual ground facts about the company were told about them. The meetings were a great success and proved that in the Colorado properties cooperation among employees does not mean 50 per cent but means 100 per cent plus.

### *Some Get An Early Start*

Many of the boys—and girls—went out before the actual official opening of the campaign and sold Colorado Public

Service Company 7 per cent stock to their friends and acquaintances, so that when the first day began they were able to report immediate results. Large newspaper advertising space was used and simple direct advertising literature was distributed to customers of all of the company's divisions, thus preparing the way for a subsequent visit of a company employee salesman.

The Public Service Company of Colorado gang was so earnest and enthusiastic in pushing its sales that the quota of \$1,000,000, which had been set, was exceeded on the eighth day, and by the close of the campaign 50 per cent more than the quota had been purchased by customer-owners.

One of the outstanding facts about the Cities Service Company is that it has, including its subsidiaries, more than 100,000 security holders. Our Colorado properties in a ten-day campaign have increased that number more than 5½ per cent.

There were 1,500 employees of the company selling stock and the average sale by each employee was in excess of 3½ shares. The success of this campaign has established a mark at which all of the other Cities Service subsidiary companies may shoot and if any one asks the Colorado crowd about it, the latter will say: "This looks good now, but wait until you see what we do when we have another campaign."—From *Doherty News*, Dec. 1, 1923.

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## ACCOUNTING SECTION

W. A. SAUER, Chairman

H. C. DAVIDSON, Vice-Chairman

H. W. HARTMAN, Secretary

### MANAGING COMMITTEE—1924

ARMSTRONG, J. J., Toronto, Can. (Canadian)  
 BARTON, W. H., Portland, Ore.  
 BISSSEL, J. H., Boston, Mass.  
 BLANCHFIELD, J. J., Brooklyn, N. Y.  
 CLINTON, DEWITT, Worcester, Mass. (N. E. Gas Eng.)  
 DONRIS, W. A., Boston, Mass.  
 FRET, H. F., Allentown, Pa.  
 HAASE, EWALD, Milwaukee, Wis. (Wisconsin)  
 HALL, I. S., Boston, Mass.  
 HEINS, J. W., Philadelphia, Pa.  
 HOFFMAN, F. C., St. Paul, Minn.  
 JAMES, F. M., Aurora, Ill. (Illinois)  
 JAMES, W. H., Petersburg, Va. (Southern)  
 KELLER, A. E., Syracuse, N. Y.  
 KURTZ, ADAM, Detroit, Mich. (Michigan)  
 LAWALL, H. J., Philadelphia, Pa.  
 LAWRENCE, JAMES, New York, N. Y.  
 MEYERS, W. J., New York, N. Y.

MURPHY, W. G., Newton, Pa.  
 PAGE, HOMER, Charleston, S. C.  
 PATTERSON, F. H., Rochester, N. Y.  
 PETTIS, W. H., Newark, N. J. (New Jersey)  
 PHILLIPS, R. E., Lincoln, Neb. (Iowa)  
 PORTER, EDWARD, Philadelphia, Pa. (Pennsylvania)  
 POTTER, C. F., Newark, N. J.  
 REESE, J. G., Baltimore, Md.  
 RETHOLDS, A. E., Springfield, Mo. (Missouri)  
 SCHMIDT, WM., JR., Baltimore, Md.  
 SCOTT, J. M., Wilmington, Del.  
 SEARLE, A. A., New York, N. Y.  
 SHORE, A. F., Providence, R. I.  
 TORRELL, A. L., Chicago, Ill.  
 TRACY, F. B., Muncie, Ind. (Indiana)  
 WILBUR, A. A., Brockton, Mass. (Gas Sales of N. E.)  
 WINTERS, A. C., Chicago, Ill.

## The Story of Our Accounting Department

THE ACCOUNTING DEPARTMENT is second to no other in the matter of importance. It supplies the information whereby the managers of our company direct its course. Inaccurate information would be highly dangerous and without any at all we would soon be shipwrecked.

To people in other departments the operations of the Accounting Department are veiled in mystery. Just how a mass of facts relating to the operations of the business, and all its ramifications, are collected and co-related, so that an intelligent and easily understandable statement can be made, is a matter that few people, outside of those engaged in the process, have any conception.

With a view to enlightening ourselves, and others, on this subject, we have persuaded Charles J. Hill, superintendent of the department, to furnish us with some few of the details, and the various divisional activities that take place in this important function of the business.

The Accounting Department of the gas company is composed of 103 employees who handle an enormous amount of detailed accounting, bookkeeping and other work, spread over five big divisions. The five divisions or sections of the Accounting Department, each a big department in itself, are known as the Stores Accounting, the Payroll Division, Bill Checking, General Books, and the Comptometer Division. Because of the vast detail connected with these divisions and in order to present a well-connected story showing how each division interlocks with the other, the Stores Accounting, the Bill Checking, and the Payroll Divisions are presented first.

### *The Payroll Division*

This division is charged with the responsibility of keeping some four thousand employees contented twice a month in the matter of the pay check we look forward to. Paying everybody on time necessitates an immense amount of cleri-

\*Reprinted from Peoples Gas Club News.



cal work and the adoption of well-defined systems for the various shops, stations, and main office. Every one on the payroll is given a number placed against their name as long as they are in the designated department. Numbers are assigned from so-called payroll advice which is filled out by a girl in the Payroll Division.

Addressograph machines are used in preparing payroll records. One graphotype machine makes the plates that are used in the printing machines; two other machines print payrolls and payroll records, and another machine prints that welcome piece of paper that Johnny Perkins passes out every two weeks.

Two girls are kept busy printing and keeping the records in order. Time books and daily time sheets are printed and sent to the shops and stations. Printing these records eliminates the possibility of confusion in names, and has reduced errors to a minimum.

The stations send in daily time sheets specifying the number of hours worked and the nature of the work. The shops send in individual time tickets with the time distributed to the various kinds of work during the day.

#### *Handling Sales and Work Tickets*

All sales and work tickets from gas appliance orders pass through this division and are carefully checked so as to apportion commission to the salesmen. Incidentally every time ticket, individual time ticket, semi-monthly reports and sales tickets must bear the proper account numbers and the Payroll Division sees to that.

#### *Making Up The Payroll*

The semi-monthly payroll carries each man's time and the amount of his pay. This is transferred to the regular pay-

roll, two copies are made and one is sent to the paymaster and the other to the superintendent of each department.

Various classes of work are analyzed and balanced with the payrolls. This analysis is then transferred to a voucher made up in ledger forms and forwarded to the General Books Division.

#### *Then There's the Income Tax*

The Payroll Division keeps a record of the individual earnings of each employee which is reported to the United States Government so as to aid in checking up on income tax returns.

During the course of one month the Payroll Division handles an average of 185,000 items of various kinds that have to do with the payroll end of our business.

The Payroll Division is under the supervision of A. W. Newton, Chief Clerk, and is located in Rooms 1648, 50, 52 and 54.

Fifteen men and women make up this division.

#### *The Stores Accounting Division*

This Division of the Accounting Department is made up of forty-six men and women whose business it is to account for the receipts and disbursements of all materials handled by the gas company, the Peoples Gas Stores, and the Peoples Gas By-Products Corporation. This applies to the quantity as well as to the value of the materials.

To bring this about, stock accounts are set up for shops, stations, garages, warehouses, branch stores, meter shops, office building and the Stationery Department.

#### *Keeping Clear Records*

Each stock item carries a code number as well as a description. A purchase record file carries the necessary information in reference to prices and this



## Connecticut Adopts Uniform Classification of Accounts

THE FOLLOWING ORDER of the Public Utilities Commission places the State of Connecticut with the fourteen other states which have adopted the Uniform Classification of Accounts for Gas Utilities. This order becomes effective January 1, 1924.

By virtue of the provisions of Chapter 199 of the Public Acts of 1921, this Commission, after duly considering the method of keeping the accounts of gas utilities in this state and after notice thereof to all such gas utilities under the jurisdiction of the Commission, hereby prescribes as the method of keeping the accounts of gas utilities in the State of Connecticut the system of accounts hereto attached, entitled "Uniform Classification of Accounts for Gas Utilities," prepared by Committee on Statistics and Accounts of Public Utilities and recommended for adoption by state commissions at the annual meeting of the National Association of Railway and Utilities Commissioners held in Detroit, Michigan, November, 1922.

The foregoing system of accounts has also been recommended by a committee of the Connecticut Gas Lighting Association.

The term "gas utility" includes every corporation, company, association, joint stock association, partnership or person, or lessee thereof, owning, leasing, maintaining, operating, managing or controlling mains, pipes or other fixtures in public highways or streets for the transmission or distribution of gas for sale for light, heat or power within this state, or engaged in the manufacture of gas to

be so transmitted or distributed for such purpose, as defined in Section 3610 of the General Statutes, Revision of 1918.

The term for accounting purposes also includes every municipality or department thereof, owning, leasing, operating or managing a plant for the supplying or furnishing of gas as a public utility as set forth in Chapter 199 of the Public Acts of 1921.

Any utility, as defined above, may for its own information and use keep upon its books, until otherwise ordered, any temporary or experimental accounts, and any accounts covering particular divisions of its operations, provided that such temporary, experimental or divisional account or accounts shall not impair the integrity of any account herein prescribed.

Wherefore it is ordered that on and after January 1, 1924, each gas utility as defined above keep its accounts in accordance with the aforesaid "Uniform Classification of Accounts for Gas Utilities" in so far as the same are pertinent to the facts and circumstances of such utility, and to keep such accounts in conformity with the definitions and instructions contained therein.

And it is further ordered that all accounts herein prescribed shall be kept by the double-entry method of bookkeeping.

Dated at Hartford the first day of November, 1923.

RICHARD T. HIGGINS,  
CHARLES C. ELWELL,  
JOSEPH W. ALSOP,  
Public Utilities Commission.

# Argument Presented Before the Pennsylvania Commission in Support of the Uniform Classification of Accounts

W. J. MEYERS, Chairman, New York, N. Y.

AS THE COMMISSION is aware, the National Association of Railway and Utilities Commissioners undertook, about five years ago, the formulation of a series of uniform classifications of accounts for various classes of utilities over which its members have jurisdiction in the several states. Its committee on statistics and accounts, acting under the direction of the Association, made a careful study of the classifications of accounts prescribed by the several state commissions and then in force. It also invited suggestions from duly accredited representatives of national associations of utilities of the classes interested, and, after careful consideration of all suggestions received from such sources, and from all others sufficiently interested in the matter to make suggestions, it formulated uniform systems of accounts for electrical utilities and for manufactured gas utilities, and submitted them to its Association at the annual convention of the Association held in 1920. Its report was received by the Association and ordered distributed to the several state commissions with the recommendation that it be adopted by them with only such changes, if any, as might be necessary for compliance with the requirements of local statutes. After careful consideration, it was adopted and made effective by several state commissions. The classification for gas utilities was also adopted as the official classification of the American Gas Association and that for electrical utilities was, with slight changes intended to clarify the text, adopted by the National Electric Light Association.

The interest of the two last named associations in this matter is due to the fact that each contains within its membership companies whose aggregate business is substantially above 80 per cent of the total of its particular branch of industry in the United States. Many of these companies are under the jurisdiction of one or more state public service or public utility commissions, and those under the jurisdiction of two or more commissions include many of the larger companies. All of the member companies that are large enough to feel the need of statistical information for the promotion of efficiency and economy in the conduct of their business recognize the necessity for having such information based not only on verbal uniformity of terminology but on real uniformity of compilation of data. They recognize that there must be uniformity of terminology before statistical comparisons can be made, and that the terms used must have standard meanings before the statistics can be other than misleading. All of those utility companies that operate in two or more states (and such companies while not a majority in point of numbers are at least a very large proportion of the whole in point of magnitude of operations) are very materially interested in having and in securing at the earliest practicable date uniformity among the several states in statistical and accounting terminology and in the interpretation and application of such terminology. Similarly, those companies whose operations are confined within a single state but include two or

more classes of utilities are very substantially interested in having like uniformity among the several classes of utilities operated. Many companies operate both electric utilities and gas utilities in Pennsylvania, and the same may be said of most of the other states. For this reason there has long been close co-operation between the National Electric Light Association and the American Gas Association in matters relating to statistics and accounting, and while this paper is formally submitted only on behalf of the American Gas Association, its arguments are known to reflect equally the views of the National Electric Light Association.

These two associations have a substantial interest in bringing about at the earliest practicable date a nation-wide uniformity in statistics and accounting for their respective industries, and as much the greater part of each industry is now within the jurisdiction of state public service or public utility commissions they were satisfied that classifications formulated and recommended by the National Association of Railway and Utilities Commissioners offered the best practicable basis upon which to develop such nation-wide uniformity. Accordingly those classifications were promptly upon issuance given careful study by these two associations and were officially adopted by them.

A year's experience in using the two classifications disclosed minor defects, and the two associations proposed certain amendments which, after careful consideration by representatives of the National Association of Railway and Utilities Commissioners, were accepted by them and their action was ratified by their association at its annual convention held in Detroit last November.

The American Gas Association believes that the nature of the business of

producing and supplying manufactured gas is uniform to a very high degree throughout the United States and that the adoption of a nation-wide uniform classification of accounts and of statistics based on such accounts will materially lessen the burden of clerical expense and will substantially promote efficiency and economy in the production and distribution of gas. Consumers as well as utility companies are benefitted by improvements in efficiency and economy of producing and supplying service and the said Association feels that the attempt to bring about such nation-wide uniformity of accounting and statistics should have the hearty support of all public service commissions to the fullest extent practicable under their statutes. All doubts should be resolved in favor of uniformity.

While in states where the commissions already have in effect classifications differing from the national classification there will necessarily be some slight expense attached to making a change, experience has shown in similar cases where the change has been made that such expense is comparatively slight and that it can be absorbed in a very short time. The benefits far outweigh it and the slight expense is soon forgotten while the satisfaction resulting from the change is long enjoyed.

While the "Tentative Draft of Uniform Classification of Accounts for Manufactured Gas Companies, classes A, B, and C," prepared by the Commission through its Bureau of Accounts and Statistics and issued under date of March 1, 1923, and the changes in said tentative draft later made by the Bureau and issued under date of November 10, 1923, both conform in many respects to the Uniform Classification recommended by the National Association of Railway and Utilities Commissioners (which, for con-

venience, will hereafter be called herein the National Classification) there are many minor divergencies and some major ones. It is not the purpose of this paper to dwell on the minor divergencies further than to urge respectfully, but with as much insistence and emphasis as properly may be, that in the interest of uniformity and the resultant encouragement of efficiency and economy the Commission confine these divergencies to the sub-division of the accounts of the National Classification, so that by making suitable combinations of the Pennsylvania accounts those of the National Classification may be produced. If so confined the essential and important advantages of uniformity will be readily obtained, it being assumed that no diversities of terminology will be introduced or retained.

There are, however, a few respects in which the propositions of the Commission's Bureau of Accounts and Statistics are not only radically divergent from the National Classification but also are objectionable on principle, and it is the purpose of this paper to call attention to the more important of them.

1st. The Bureau proposes that credits made to fixed capital accounts because of permanent withdrawals of apparatus and construction be classified with respect to the date of installation of the things withdrawn, credits for withdrawals of those installed prior to January 1, 1924, being made to one set of accounts and those for things installed on or subsequent to that date being made to another set of accounts. This requirement introduces an additional complication into the bookkeeping and adds materially to clerical expense. As time goes on, it will become more and more difficult to comply accurately with it, and inaccurate compliance will be misleading and thus worse than useless. While in the case

of large and easily individualized units of apparatus it is possible to record sufficient facts to permit compliance with the requirement, even with such units the requirement adds substantially to clerical expense. With respect to those items which are numerous, and particularly to those constituting continuous structures, the precise date of installation becomes in the course of a few years difficult and correspondingly expensive to determine. No benefit can result from this requirement that is at all commensurate with the expense involved.

2nd. The proposed accounts through which to make provision for writing off losses consequent upon withdrawal of fixed capital are cumbrous, and in practice will be found burdensome and extremely objectionable, not only to the utilities but also to consumers. If supervised with anything like thoroughness, their supervision will also cause the commission great and useless expense. If not thoroughly supervised, they will in many cases not be observed and may on occasion give rise to much embarrassment, as dead letter laws have frequently done in the past.

In the remarks made on behalf of the Bureau of Accounts at the hearing on November 21, 1923, it was indicated that the Bureau had under consideration and would probably, for the sake of uniformity with classifications already in force in Pennsylvania for electric companies, recommend the inclusion, in the classification to be prescribed for manufactured gas companies, of accounts in conformity with account No. 183, "Reserve for Renewals and Replacements," appearing on pages 36 and 37 of the Commission's Uniform Classification of Accounts for Electric Companies, and other accounts therein related to that account. The remainder of this discussion of the matter of retirements will there-



fore be directed to those accounts in the Commission's Classification for electric companies.

The instructions provided in connection with that account are open to serious objection from several standpoints. In the first place, they use the word "depreciation" in a highly artificial and technical sense, far removed from that in which it is popularly used. The Standard Dictionary defines "depreciation" as "lessening in worth." The word as commonly used denotes a shrinkage in value, a meaning in conformity with that stated in the Standard Dictionary. With that meaning it has no proper place in the accounts of a public utility company. A public utility company under the laws now in force is not to be looked upon as a trading concern. There is no occasion to introduce into its accounts figures designed to reflect fluctuations in value of the assets devoted to rendering public service. Those assets are not held for trading purposes. They are to be used in producing service. It is important to record their cost and the use made of them. Most of them are in the form of fixed capital designed for and devoted to a particular service, and they cannot be detached and sold or devoted to other service except at substantial and in most cases great loss. Such detachment and change in use would in most cases be extremely wasteful and therefore absurd. Such being the case, no possible benefit can result from attempting to record estimates of fluctuations of value. Such attempts could produce nothing but masses of meaningless and misleading figures.

A careful reading of the text of the Commission's Account No. 183 suggests, however, that its purpose is not to record depreciation or shrinkage in value of structures and equipment, but to make provision for writing off losses realized

when fixed capital is permanently withdrawn or retired from service. The terminology used is objectionable, and the method indicated for accomplishing this result is unnecessarily complicated and impracticable. It calls for much unnecessary accounting work without producing any commensurate benefit. Consider the essential part of the instructions respecting the account: "When any structure or equipment of the electric system is retired from service, charge to this account *the amount credited to it since January 1, 1919, to provide for the depreciation of such retired structure or equipment*; charge to the depreciation reserve account provided prior to January 1, 1919, the accumulated amount of depreciation accrued at the close of December 31, 1918, *on such structure or equipment*; charge to "121. Materials and Supplies" account the value of the salvage recovered; and credit to the fixed capital account in which it is carried the original money cost of such retired structure or equipment. If the original money cost of any structure or equipment retired is in excess of the above charges, charge such excess either directly to "809. Amortization Unprovided for Elsewhere" account, or, with the permission of The Public Service Commission, to "131. Property Abandoned" account.

Apparently the electric classification does not define the word "depreciation" but it does direct the utility to include in "expenses of depreciation" those ordinary losses suffered by the utility's structures and equipment from wear and tear not covered by current repairs; those extraordinary losses sustained by such structures and equipment from obsolescence or inadequacy due either to age, physical change, or supersession resulting from new inventions, discoveries, change in popular demand, or require-



ments of public authority; and those losses which result from the destruction of such structures and equipment, by those extraordinary casualties to which the principles of insurance are not applicable. (See lower half of page 36 of the Commission's Uniform Classification of Accounts for Electric Companies.) The "expenses of depreciation" as the term is used by the Commission thus include (1) under-maintenance or what is sometimes spoken of as "deferred maintenance," (2) "extraordinary losses sustained \*\*\* from obsolescence or inadequacy," and (3) "losses which result from \*\*\*\* destruction \*\*\*\* by those extraordinary casualties to which the principles of insurance are not applicable." The Commission directs the utility company to credit to account No. 183, "Reserve for renewals and replacements" and charge to account No. 558 "Renewals and replacements" (an operating expense account) "that amount which it is estimated will through regular application over the life of the structure and equipment of the various divisions of the utility's electric system be sufficient to provide an adequate reserve to cover those expenses of depreciation that *accrue* upon *such* structures and equipment." This amount "shall \*\*\*\* be based upon a rule determined by the utility," and apparently it is intended by the Commission that the rule shall embody "a fair and reasonable basis of depreciation."

The word "accrue" implies growth or gradual accumulation. The net result of the foregoing is that the utility is required to determine a rule by which it can forecast the gradual accumulation of (1) under-maintenance, (2) extraordinary casualties that may reasonably be expected to occur during the life in service of each structure or item of equipment that can be satisfactorily in-

dividualized, and to record the amounts relating to each such structure or item of equipment in a separate sub-account or to make the entries in such wise that it can be determined when any such item is permanently withdrawn from service how much is included in the account with respect to *that identical item*. To comply with all of these requirements will necessitate truly prophetic powers, and it is doubtful if under present conditions an individual possessed of them can long be induced to remain in the public utility field. All that can reasonably be expected of the management of a utility is to provide within its field adequate service at a fair price and by methods and processes that shall not endanger the health of employees, consumers and other members of the community served. With respect to "those extraordinary casualties to which the principles of insurance are not applicable" the very description puts them beyond the bounds of the field of providence or forecast. Obsolescence and inadequacy are almost as much beyond possibility of forecast. No manager, even though he were to devote all his time and energy to the subject, and keep himself more fully abreast of the progress of scientific research than any manager has ever yet been able to do, would or could undertake to make a forecast of the inventions and developments of the art that will take place even within the next twelve months. The matter of inadequacy, so far as it is due to growth of population, can usually be forecast with tolerable accuracy for a period somewhat greater than one year, but probably few responsible executives would care to bind themselves to definite contracts for construction or reconstruction for as much as five years in the future. Under-maintenance will not arise except in case of shortage in revenues or labor or material. Shortages

of labor and material are difficult to forecast much more than a year in advance, and shortages of revenues can not reasonably be expected under fair rates.

It was suggested at the hearing above mentioned that the administration of these rules in their application to electric utilities in Pennsylvania had been such as not to embarrass the utilities. It can hardly be assumed, however, that it is advisable to carry absurd or unworkable requirements into a statute or regulation merely in the hope that the public authorities when confronted with responsibility will ignore or disregard them, and will deal with the situation in a common sense way. If reliance is to be placed solely on the common sense of the administrative authorities, there is no occasion for prescribing any rule.

The truth of this matter is that no detailed forecasts over any very long period of time are, or can be, sufficiently reliable to warrant spreading them in detail on the records of either commission or company. The best results will be accomplished if the commission maintains its position as regulating authority, never losing sight itself, and never permitting the utilities under its jurisdiction to lose sight, of the fact that their duties are summed up in rendering safe and adequate service at a fair price to all who demand it within the boundaries marked out in the franchises of the utilities. The utilities should be allowed all reasonable latitude in their selection of men and measures whereby to produce these results. The commission has ample authority to keep itself fully informed of the steps taken by the utilities and to discipline them for any failure to perform their duties, but it can hardly call upon them to exercise prophetic powers much beyond those of which ordinary citizens are possessed.

In connection with the matter of re-

quiring full information respecting the action taken by utilities upon retirement of fixed capital from service, no other accounting procedure can be suggested at this time equal to that offered by the National Association of Railway and Utilities Commissioners in its uniform classifications of accounts for gas utilities and electric utilities. That association's accounting provisions in this connection are contained principally in two accounts, the first of which is defined as follows: "251. Retirement Reserve." "To this account shall be credited such amounts as are charged to the operating expense account 'Retirement Expense,' appropriated from surplus, or both, to cover the retirement loss represented by the excess of the original cost, plus cost of dismantling, over the salvage value of fixed capital retired from service. When any fixed capital is retired from service, the original cost thereof (estimated if not known, and where estimated the facts on which the estimate is based should be stated in the entry) should be credited to the proper fixed capital account and charged, plus the cost of retirement, less salvage, to this account. If the credit balance in this account is insufficient to cover the retirement loss, the excess over the balance contained in the reserve should be charged to account No. 132, "Property Abandoned" (which see) or to other appropriate account.

"The losses which this account is intended to cover are those incident to important retirements of buildings, of large sections of continuous structures, like gas mains, or of definitely identifiable units of plant or equipment, and the object of the account is that the burden of such losses may be as nearly as is practicable equalized from year to year, but with due regard for amount of earnings available for this purpose in each year."

The amounts credited to this account are the counter entries to amounts charged, for the purpose of this account, either to operating expenses or to surplus to make provision for retirements of important items of structures and equipment. It is left discretionary with the management of the utility to include the charges in operating expenses because the loss from necessary retirements of plant and equipment is a part of the cost of operation, and if such loss is included either at the time of retirement or earlier in operating expense charges it avoids the necessity of making adjustments therefor in any analysis of the accounts for the purpose of ascertaining over a period the cost of operation. In any such inquiry, however, it will be necessary to bear in mind that the charges to operating expenses to create this account during a given period may not, and in many cases will not, be precisely equal to the actual retirement losses realized during the period. They are merely forecasts to be made in accordance with the best judgment of the responsible managers of the utility. For the purposes of the commission the really significant information is to be found in the charges (debits) made to the reserve in connection with actual retirements of specific items of plant and equipment. Those charges record facts of original cost of

property retired, of actual cost of dismantling, and of salvage realized. *They are not mere estimates.* Taken over a period long enough to be really representative, they afford the commission the best and most reliable information of past and present costs of operation and furnish the most reliable and from every standpoint the *best available basis* for estimating this element of the cost of future operation. From the accounting standpoint the treatment is simplicity itself and it involves no absurdity of hairsplitting guesses at the expected lives in service of either individual units or classes of apparatus and structures. It sets up no useless multiplicity of accounts and does not require the utility to put upon its record estimates which can never benefit it but which may, in litigation or controversy, be construed as admissions against interest and may thus operate to its disadvantage. All of the really significant facts are recorded in such detail as the commission may require in the *charges* to this reserve account, and it is respectfully submitted that this account and its related accounts should be adopted and prescribed by the commission for all manufactured gas companies within its jurisdiction and, with suitable changes in illustrative matter, for all other utilities within the commission's jurisdiction.

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### **Worcester Gas Light Company Adopts Bookkeeping Without Books**

On December 1, 1923, the Worcester Gas Light Company installed the system of Bookkeeping Without Books and thus joined the ever increasing number of companies using this system.

## PUBLICITY AND ADVERTISING SECTION

J. M. BENNETT, Chairman

F. L. BLANCHARD, Vice-Chairman  
CHARLES W. PERSON, Secretary

### MANAGING COMMITTEE—1924

BURNS, J. J., St. Louis, Mo. (Missouri)  
CLIFFORD, F. S., Fitchburg, Mass. (Gas Sales of N. E.)  
COONEY, E. J., Lowell, Mass.  
COOPER, STUART, Charleston, S. C. (Southern)  
CRONE, F. W., New York, N. Y. (Empire State G. & E.)  
FENNIMAN, J. R., New York, N. Y.  
FRANKLIN, S. J., Millville, N. J. (New Jersey)  
GREEN, H. L., Waterloo, Ia. (Iowa)  
HALLADAY, G. D., Grand Rapids, Mich. (Michigan)

HAWES, A. W., Jr., Baltimore, Md.  
HUMM, A. W., New York, N. Y.  
JAMES, F. A., Ottawa, Ont., Can. (Canadian)  
LIGHTBODY, JAS., Vancouver, B. C.  
MORRIS, H. C., Dallas, Texas (Southwestern)  
MULLANEY, B. J., Chicago, Ill. (Illinois)  
POTTER, CLYDE H., Los Angeles, Cal.  
ROLESTON, R. J., Philadelphia, Pa. (Pennsylvania)  
SHEPARD, I. O., Evansville, Ind. (Indiana)  
SOULES, E. E., Chicago, Ill.

## Publicity

WHEN ONE STOPS to consider the question, he soon realizes that the public utilities have been directly dealing in publicity and advertising ever since the beginning of their existence. When a group of men got together more than a century ago in Baltimore to form a gas company, how did they let the residents of that city know of the project?—through the channels of publicity and advertising, no matter what they called it.

Ever since then they have been dealing in publicity and advertising but not always in a well-organized way. For many years the gas men shied at having their names appear in the newspapers or having the newspapers exploit their industry. In many instances, they even refused to authorize an appropriation of funds for the purchase of advertising space in the daily papers. Now, however, there is a change, but the transformation of policy is not yet complete.

If the men who are the gas industry want the public to know that they are receiving a square deal from the local gas company, they must adopt a more progressive program of publicity and advertising. They must appropriate larger sums for the purchase of advertising

space, particularly in the newspapers. If you want the public to have a friendly feeling for your organization, if you want to be friendly with the local publishers, if you want a more intimate contact with the community as a whole, you must do your share in establishing these profitable relations.

Now you are saying—"service, good and efficient service." You are rendering good and efficient service, but if you will not tell the people about it in a way which they will understand, all the money you have spent perfecting your plant, all the hours you have spent in the laboratory, all the plans you have laid will not achieve a full measure of success. You are doing this work because you really want to better your service and because you want to be of real service to your respective communities; but what good is that ambition if you do not tell your friends, the public, about it?

Granting that you do employ a trained newspaper or advertising man to carry on this phase of the business, how do you do it? Do you go to him and say, "I want a story made out of this, that or the other thing"? In other words do you demand that he send out an article without giving him the opportunity to go



through the matter and decide whether or not it is a subject for a news story or an advertisement? Do you practically insist that he become a "yes man"? On the other hand do you permit him to say—"There is no news value in this stuff, it properly belongs in the advertising columns and I will arrange to contract for the necessary space." If you give him that leeway, then you are getting the most out of your investment, establishing a good, wholesome and helpful reputation and not giving the local editors a chance to call you a "free space grabber."

The newspaper business is one which must be learned from the ground up even as you had to learn the gas business. The writing of a news story requires a certain technique which the layman has not got and cannot possibly have. A man must have his "news sense" developed before he can write an acceptable news story or before he can take a mass of information and extract from it facts having real news value and thus construct a story which any publisher will be glad to print. If you have not the confidence that your man can do this, then one of two things is wrong; either you have a poorly conceived idea of the theory of centralized authority or you have had demonstrated to you the fact that your publicity man is incompetent. And if that be the case, he should be dismissed immediately.

No doubt you are waiting to reply to all this that your man is not an experienced gas man. We grant you that, but hasten to remind you that he is an experienced and thoroughly trained newspaper man and as such has the ability to pick out from the mass of matter you lay before him the facts containing real news value, a relative quantity at best. Now if "news value" is a relative quantity how can you, an untrained layman, unschooled and unpracticed in the ways of newspaper work, hope to decide what is and is not a good news story?

If you feel that your company is financially unable to support a separate publicity and advertising department, well and good, but do not forget that your big brother, the A. G. A., does maintain a well-equipped publicity and advertising section and that it is our job to assist you in these matters. Let us help you with some of your difficult problems and help you fix up some real news stories for your local papers. Then do not forget the fact that we run a special advertising service every month for the benefit of our members. This service will cost you but \$5.00 per month and is designed primarily for the smaller companies which cannot afford to keep a regular advertising man to write their copy for them.

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*We think our fathers fools so wise we grow;  
Our wiser sons, no doubt, will think us so.*

—Pope



## The Section's Officers



James M. Bennett

**M**R. JAMES M. BENNETT, the new chairman of the managing committee of the Publicity and Advertising Section, began his newspaper career about thirty years ago as an office boy in the editorial department of the Baltimore (Md.) *News*. He worked his way up to a position on the reportorial staff

of that paper. In 1904 Mr. Bennett went to Philadelphia and accepted a position on the staff of the *Evening Bulletin*. Following his association with the *Bulletin* he went to the *Public Ledger* and remained with that organization for a number of years. When the *Evening Ledger* was organized during the early

years of the World War, Mr. Bennett was transferred to the staff of that sheet and in 1916 was made City Editor. This appointment he held until 1918 when he resigned to become publicity director for the Episcopal Diocese of Pennsylvania with headquarters in the Church House, Philadelphia.

Mr. Bennett resigned that position May 1, 1920, to become Publicity and

Advertising Manager for the United Gas Improvement Company, the position he now occupies. Mr. Bennett holds the distinction of being one of the only American newspaper men who went to Europe on a Belgian Relief ship. Also in connection with this achievement it might be stated that Major Alexander Forward was one of the men who helped make this trip possible.



Frank Le Roy Blanchard

Frank Le Roy Blanchard, director of Public Relations of Henry L. Doherty and Company and Cities Service Com-

pany, and vice-chairman of the Publicity and Advertising Section was born in Lewiston, Maine, and obtained his early

education in the public and private schools of that city, graduating from Bates College in 1882.

At the close of his college career, Mr. Blanchard became a reporter on the New York *Tribune* and for two and a half years served under Arthur Bowers, one of the most exacting and capable city editors in the metropolis. During that period, Mr. Blanchard was given many important assignments.

Later, he joined the City News Bureau. It was at this time that William H. Vanderbilt died. Jay Gould, next to Mr. Vanderbilt, was the foremost figure in the railroad world. Mr. Blanchard was the only reporter in the city who succeeded in interviewing Mr. Gould on the subject on the day of the railroad president's death. Subsequently, Mr. Blanchard purchased a controlling interest in the New Britain (Conn.) *Daily Herald*, which he conducted for two years. On his return to New York he became business manager of *Electric Power*, the pioneer publication in its field, and later was assistant editor and manager of the *Evening Telegram*, and city editor of the *Morning Telegraph*.

For some time Mr. Blanchard was identified with publication devoted to the newspaper industry. He was the first editor of *Editor and Publisher* and gave it its name.

At the invitation of Ben Hampton, he then entered the advertising field as a

member of the copy and publicity staff of his agency which at the time ranked third in the volume of business handled by the advertising agencies of the United States. He remained with the Hampton Agency until he was appointed managing editor of *Printers' Ink*.

Mr. Blanchard is the author of "The Essentials of Advertising," which has been listed as one of the ten best books on this subject. For nineteen years he has conducted a course in advertising at the Twenty-third Street Y. M. C. A., the first to be established in this country by an educational institution.

He has for twenty years been one of the New York Board of Education's staff of lecturers. His addresses included "The Making of a Newspaper," which was delivered 150 times; "The Wonders of New York," 200 times; "The Transportation Problems of New York," "New York Underground," and "The New York of Tomorrow."

Mr. Blanchard is a member of the National Commission of the Associated Advertising Clubs of the World; a director of the Public Utilities Advertising Association; a member of the Extension Committee of the Financial Advertising Association; a member of the Advertising Club (N. Y. City) and a member of the Advertising and Publicity Committee of the American Electric Railway Association.

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*Drive thy business, or it will drive thee.*

—Benjamin Franklin

## Mr. Barnum's Idea Will Get Results

**T**HE FOLLOWING IS a type of advertisement now being successfully used by the Boston Consolidated Gas Company. President Dana D. Barnum conceived the idea and ordered it run in the Christian Science Monitor.

### CHEERFUL CO-OPERATION GAS COMPANY'S SLOGAN

Corps of Trained Experts Give Personal  
Attention to Wants of Quarter-  
Million Gas Users in Greater  
Boston

Did you ever call some big commercial organization on the telephone to make a "kick" about something, to ask advice or some question you thought most anyone ought to be able to answer and find that it was next to impossible to get any satisfaction or information?

Did you ever wait hour-long minutes on the telephone for information, get shunted from one department to another and eventually get left hanging hopelessly on the end of the line, finally hang up the receiver in disgust and then make the trip downtown and demand the information in person?

Whether you have or haven't you will register approval for the plan just adopted by the Boston Consolidated Gas Company to correct just that annoyance and give customers direct personal and expert service by phone. Though its customers are invited and cordially received at its main office it is no longer necessary for them to appear in person, for all their wants can be immediately and efficiently attended to by trained men always accessible by telephone.

### *Effort to Help Customers*

Appreciating the fact that a contented user of gas is an asset of value to the company, President Dana D. Barnum of the Boston Consolidated Gas Company a short time ago adopted a plan to bring the company closer to the people, to make a real human connection between the officials of the company and the gas-using public. How to make this personal touch between the company and the 250,000 customers in Greater Boston using its product was the problem that gave him a great deal of concern. The executives could talk personally with but a negligible percentage of those who wanted information or advice by telephone.

The next best thing he could do was what he has done, to establish a switchboard service at the main office of the gas company at 149 Tremont Street, by which every person calling the company, no matter what the object may be, is given a direct, personal and sympathetic service. This service is called the Telephone Order Board.

### *Saves Customer's Time*

In its perfected state it has been in operation but a short time. But in that period it has saved countless hours of fretting and fuming for the company's customers and fully as many hours for the company's organization. It has put an end to confusion and has resulted in numerous commendatory communications to the company for the exceptional efficiency of its organization.

No matter what the inquiry of the subscriber may be, he is put into immediate direct touch with the person in the organization who can handle the

matter. If it is something that can be adjusted by phone, it is done at once. If it is something that requires the service of gas fitter or an emergency crew, arrangements are made and carried out, the individual at the Order Board taking it upon himself to be the customer's representative in the matter and seeing it through to the end. He takes it up as a personal matter and secures all the information on the subject without its being necessary for the customer to talk with anyone else. The customer explains what is wanted to this expert who corrals all the information and reports it back. If it happens to be a matter that cannot be adjusted by phone, the Order Board man makes complete plans for it to be attended to and follows the matter until it is fixed and calls up the customer to see that everything is adjusted satisfactorily.

#### *All Sorts of Questions Answered*

If it should happen to be a question about a bill, as sometimes is the case even in these days of high-efficiency of adding and other mathematical contrivances, the customer is put in touch with the person who has the information at hand. It may be one of a thousand and other things, but the company has on tap, ready to be of service and to answer questions by the hour, specially trained men who have all but taken oath that they can answer any question that a subscriber can propound.

Should the customer want to know where to get any of the thousand and one labor-saving, convenient and economical gas appliances or the prices of them, the man on the Telephone Order Board is just as ready to be of service. He will tell the customer anything he wants to know about them—how they work, what they are likely to cost and

how soon they can be attached. If the customer cannot come to the company's showroom where all gas appliances are on display, the man on the Order Board will carry out the customer's instructions exactly as given.

The constant operation of a large number of trunk lines under the number Beach 7060 gives the public immediate access by telephone. Trained receiving operators, after a few words from the subscriber, know just who can best attend to the matter and the subscriber is connected at once with that man. The Telephone Order Board man does the rest. There's no shunting around from this to that department and no opportunity for vexation. It's service de luxe, quick, courteous, efficient, complete.

#### *Talk to Only One Person*

President Barnum, speaking of the service yesterday, said: "It is our purpose to give our customers special and individual attention when they call upon us for information or advice. Of course there is no difficulty at all with personal calls when the customer asks for some specified person.

"The majority of calls, however, are inquiries and each must be handled by some responsible person who knows exactly what is wanted and knows what to do or advise. These calls are segregated by the receiving operator according to type and right man to put on the line. If the inquiry is something still beyond him he takes the matter up in the interest of the customer, gets the information and supplies it to the inquirer without the necessity of the customer talking business with any other individual in our organization.

"Since the adoption of this plan of direct, personal, interested service, we have found that it practically eliminates confusion, is a great saver of time and



annoyance for the customers and actually saves a vast amount of time for the individuals in our organization who heretofore have frequently been bothered about matters entirely out of their jurisdiction when there was no head nor tail to the switchboard service. As an efficiency scheme it is a success. From a standpoint of service it is cheerful co-operation."—Advertisement.

There is a series of these advertisements to be run in the Boston papers. Space does not permit the reproduction of all of them. We wish it did because they are splendid examples of a good type of advertisement which all companies can use without exceeding the limits of the established publicity and advertising policy.

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## Those to Whom Our Thanks Are Due

**D**URING THE MONTH just past several well-known writers have written articles bearing directly upon the gas industry. These men have written intelligently, entertainingly and helpfully of the industry and have, through their work, done a great deal toward placing this industry in a fair and honest light before the public and those men engaged in other scientific lines of work.

In the December issue of the *Scientific American*, Mr. Ismar Ginsberg wrote at great length on the question of "The Fuel of the Future." Mr. Ginsberg has shown the advantages to be obtained from the universal burning of gas and at the same time has pointed out the obstacles standing in the way of its attainment and how to remove them.

Another group of articles that have had a decidedly good reaction upon the industry are those by Mr. Burton L. Read in *Barron's*. Mr. Read's articles have dealt with the financial phases of the industry with special emphasis on the future of the business.

Mr. Ralph Rushmore, writing in the

*Magazine of Wall Street*, is another writer who has devoted considerable space to the interests of this business. A particularly good article by him has appeared in the November 24 issue of that publication. It was along the lines of making stockholders out of customers, and clearly showed the advantages to be gained by both sides when this plan is universally adopted.

Our thanks are also due to Mr. John Meyer, managing editor of the *National Printer-Journalist*. In the November issue of the magazine Mr. Meyer devoted a page and a half of space to the subject of advertising by the public utilities. His subject is, of course, exceptionally interesting to this section. He spoke in glowing terms of the work already done along this avenue by the utilities companies and expressed the hope that the work would be expanded to even greater proportions. Mr. Meyer also pointed out that the day of "wildcatting" in the utility business was at an end and that alone is a recognition well worth recording when it comes from such a source.

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## The Gas Industry in the Nation's Editorials

**T**HE EDITORIALS printed at the end of this article are examples of what can be done along publicity lines when the publishers are properly approached and dealt with. Similar articles are constantly appearing in the press of the nation.

Our educational work has gained these results for us and the cordial relations we have established with the various publishers' organizations are decidedly beneficial as evidenced in the meeting of the Inland Daily Press Association when it invited Mr. Joe Carmichael, Director of the Iowa Public Utilities Information Committee, to address it on the subject of public utilities publicity and advertising. The booklet issued by the Inland following each of their meetings contained the full text of Mr. Carmichael's talk and several kindred organizations have made recognition of it.

Too much cannot be said about the congenial relations existing between this association, through this section, and the American Newspaper Publishers' Association. This association, one of the strongest in the publishing fraternity, has assured us many times that they are always willing and ready to assist us in straightening out any tangles which arise between our member companies and local publishers. Therefore, if you are having trouble in this direction tell us about it and we will take the matter up with the proper authorities and smooth out the wrinkles.

The editorials follow:

### BETTER AND CHEAPER GAS

O. P. Hood, chief mechanical engineer of the United States Bureau of Mines, told the members of the American Gas

Association that hope of the householder for cheaper gas will be dim as long as arbitrary and unnecessary standards and limitations imposed upon gas utilities force them to go far afield for special coal when there is an abundant supply near at hand.

This suggests that legislation has not kept abreast of the improvements made in the manufacture, distribution and consumption of gas. This may be the fault of the companies in not educating their customers. There is many a consumer who is complaining about the quality of the gas supplied, when the fault rests with himself for not buying proper mantles.

If more liberal laws were enacted to permit the gas manufacturer to declare a standard for gas which would enable him to use a fuel naturally tributary to his district, Mr. Hood said, the immediate result would be greater usefulness of gas, a lower cost of production, a more staple supply of fuel and better use of the nation's transportation system.

Legislatures will do their part when public sentiment warrants action. Probably the gas companies have been negligent in not educating their customers as to the possibilities, and especially of the new inventions. They have abundant opportunities for doing this through their agents, who make monthly visits to the homes and business places.—*The Trenton Times*.

### INCREASED INVESTMENT IN UTILITY SECURITIES

More than 1,250,000 shares of stock issued by gas and electric utility companies of the country have been purchased by 227,170 persons in the last 20 months.

Almost all of these new stockholders are residents of the communities served by the companies. The computation is from an analysis of sales made by the Customer Ownership Committee of the American Gas Association.

This wide diffusion of utility securities among customers constitutes a new record in the customer-ownership of gas and electric companies. Included in the purchases were 550,709 shares of stock of gas manufacturing companies, and 700,932 shares of stock of combination gas and electric companies. The new capital obtained through these purchases by customers was acquired at the lowest cost known in gas company financing says the committee's statement. It declares:

The growth of the public utility industry in recent years has been marked by the rapid development of customer-ownership. The sale of securities to cus-

tomers has become one of the most important elements in financing extensions and improvements in utility service, both because of the capital derived therefrom and because of the public interest in the success of the company.

A recent survey of 156 electric light and power companies indicates a similar development in this branch of the public utility industry.

Records kept since 1914 show that the yearly sales of shares of stock, of a value of \$100 a share, have increased from 31,310 to 1,750,707, whereas the number of new stockholders added yearly has grown from 4044 to 198,018. The present number of electric company security owners throughout the country is put at 1,600,000, while the average purchase of each new investor has dropped from \$2,280 to \$880, indicating the widespread sale of securities among people of modest means.—*The Allentown (Pa.) Leader.*

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## A Good Stunt

The following item appeared in the Omaha, Neb., World Herald. This company has employed a legitimate publicity "stunt." Legitimate because it contains real news value.

### GAS COMPANY THANKS BLUFFS WITH A SIGN

"Thank you" emblazoned in large red letters were the words on a sign hung in a conspicuous place in a window at the Citizens Gas and Electric Company's office on Pearl street Tuesday in appreciation for the overwhelming vote in favor of the gas and electric franchises Monday.

"We want the people of Council Bluffs to know that we not only appreciate their vote but their evident appreciation of the service we have given," A. L. English, manager, said.

## MANUFACTURERS SECTION

G. W. PARKER, Chairman

E. E. BASQUIN, Vice-Chairman

C. W. BERGHORN, Jr., Secretary

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 WOLFE, A. McW., Baltimore, Md. (Southern)

## The Gas Man—The Manufacturing Specialist

AT ONE OF THE Industrial Gas Section Meetings during the recent convention, a part of the program was reserved for a manufacturers' symposium in which opportunity was given to the manufacturers to state what they were doing and what they hoped to do for the good of the industry. We are printing a few of the opinions expressed, believing that they will be of interest to all manufacturers.

H. O. LOEBELL: If you will allow me, I would like to take just one minute of your time to make clear to you my views so that you will not be so puzzled as to what position I occupy.

I have been in the industrial phase of this business for twenty years and am still an industrial engineer for the Henry L. Doherty Company. Years and years ago the Doherty organization decided that in order to develop its business it had to produce equipment not then available. They built up a small concern with which you are all familiar—The Combustion Utilities Corporation. We later on realized that large business was to be secured by different types of ap-

pliances and the industrial division of the Henry L. Doherty Company developed a lot of appliances of different characters. The thought afterward occurred to us that, while a manufacturer knows some of the details of the manufacturing business and knows some of the part of the business that is coming to him as a manufacturer, in order that the perspective of that appliance manufacturer be correct and in tune with the gas bills, the man who supervises the manufacturing plant must be a gas man in daily contact with the requirements of the trade, and able to give the proper objective to that manufacturing concern.

I do not know if I am so qualified, but apparently our people think so and they gave to me the added burden of being the head of the Combustion Utilities Corporation. I have the advantage of knowing what the industry needs. I am a gas man. I go to the managers of the different properties and try to increase their load. I know also the difficulties the manufacturer has.

I may be wrong in my conclusions and in my ideas but I want you to accept

my statements as being sincere and honest and the result of real experience. I want to be faithful to this section and I want to give you a thought that will help this section in the industry and your company in the way of dollars and cents.

The manufacturer of industrial gas appliances has a bigger problem than you gas men have in selling the gas—because it is in the nature of a gas appliance that it can be readily copied and readily made by a man who deals in iron, steel or refractories. A manufacturer develops a certain appliance and puts it on the market after he spends a great deal of money, but the gas man can imitate it. It may not be as nicely finished but it will do the trick more or less. In order to encourage the manufacturer to be able to produce new things and to develop the business for you as much as for himself, you have to encourage him, and it is within the discretion of every man here to say which manufacturer should be encouraged. Personally I would encourage that manufacturer who brings the greatest number of new things before us which add the greatest amount of load regardless of the prices charged for the equipment. After all, you are interested in selling gas and you usually pass along the cost of the appliance to the consumer where it belongs. Sometimes you feel that because you can obtain one appliance of a certain character—at a slightly reduced cost—you are justifying the purchase of that appliance. But you are not justified in purchasing an appliance made by a stove manufacturer in preference to an appliance made by an industrial appliance manufacturer because you are taking away a trade or business that belongs to the man who specializes in that line and who continuously gives you, besides a standard appliance, something new.

I feel that no stove manufacturer

justifies the receiving of business for bake ovens, candy furnaces or burners. You may differ with me, but the profit being made on the bake oven or candy furnace by the industrial specialist is "proportionately going into a new furnace or new method of burning gas. If you feel that that profit to an industrial manufacturer is something you should be able to get along without, you are not going to make progress. But if you will take it upon yourselves to analyze the situation you will come to the conclusion that his progress, his development, his growth, his financial success are going to be your financial success and your growth.

Every one of us who has been on the firing line for any length of time knows the handicaps we have had to get the proper appliance to link the demands of the manufacturer with our service. We have made a great number of attempts and a great number of failures, and the reason for it is because we thought it possible to produce suitable equipment in a home-made way. It is hard, and I believe we have handicapped the industry by that attitude.

My plea to you gentlemen is to look upon the manufacturer as the one who has the proper facilities to give you greater service, providing you will patronize him to a greater degree. Allow him his profits in order to give him an opportunity to develop his vision and the realization of his vision will make it possible for you to secure more business.

This thought I feel reflects the idea of every manufacturer. I am not their spokesman. I am trying to give you a result of my own analysis, trying to make a little organization that has been thrown into my hands grow and to make it possible for them to develop better and better appliances for your use.

So far as the future is concerned and so far as the things we have in mind to



produce for you gentlemen are concerned, I would say that our ambitions are high. We aim to be in a position to have equipment on the market that will do the heating work for every single operation known in industry today. It will be impossible for us to cover the whole field. Conditions in every city differ and while we may be able to put in an equipment of our make in a certain place, in another town the conditions may be so different that the details of manufacture may have to be suited to it. There is no particular manufacturer that covers the whole field. The uses are diversified and every manufacturer fills his own line. He has certain ideals and he works along those lines. We are going to put forth our best efforts to serve you. We want your encouragement. We want your encouragement as much as possible on standard equipment, and I want to leave this thought with you—whether you should purchase equipment from those manufacturers that are helping you most, rather than purchase, probably at reduced prices, from the man that sells just so much cast iron, so much sheet steel and so much brick. You are doing yourselves an injustice by purchasing from the latter and are reducing the chances of the former to help you more and more.

R. W. LESLEY: I serve another great industry of this country—the Portland cement industry. When the Portland Cement Association was organized a good many years ago, they organized a committee on new uses who projected a rainbow which they hoped to bring to the public. The new uses began with the baptismal event and ended with the coffin, with all the steps in between. But with your thousand uses for gas, I feel thoroughly sure the cement fellows are nowhere near where the gas men are.

Having gone through the pioneer days of an industry that today is one of the

great ones in this country, and, as a matter of fact, consumes as many millions of tons of coal as all the gas companies in the United States, it is the charm of this new field that brings me here today to speak a little on what Mr. Loebell has so well described—the duty of the gas company to the manufacturer of a gas appliance to buy that appliance. When you come to think of it, they are your research departments and everyone who has ever gone into research knows what it costs. When we produce some special furnace that may consume 100,000 cubic feet per hour, we are doing something that gives you more than 500 domestic consumers a month. We feel that the research we do and the failures we make and the machinery we build and do not operate, are all milestones, not in our progress, but in your progress and we feel that when we spend thousands of dollars for research, throw aside all sorts of experimental work, study with the best chemists, employ the best engineers, that we are more than just appliance makers—we are engineers. We are doing research work and we feel, as Mr. Loebell does, that in the business of this kind, those concerns that have gone through the briars and out into the rough and got scratched and man-handled and suffered all sorts of things, are entitled to, not everything, but certainly to some consideration of the fact that they have overhead and are working all the year round and that the furnaces they build are not for today only. When we put in a furnace that uses 100,000 cubic feet a day, we are contributing something to the gas company every day in the year and while we get paid only once for that service you get paid for it every month, perhaps for ten years. Yet people can imitate that furnace without our research, experience, or engineering work, and build some home-made

furnace that may produce the results. We do feel that in considering the subject in its broadest lines we ought to be considered as more than just commercial people putting something in the field to sell to be left alone and not be considered afterward. We should be considered as a body of engineers giving their lives, giving their study and giving their research to this big industry.

F. F. CAULEY: This summer I had the privilege of touring Europe, investigating the gas business, particularly the utilization side of it, and I was attracted by the close cooperation between the manufacturer of industrial equipment and the British Commercial Gas Association. I will not say that that is the cause of so much industrial gas being used for industrial purposes, but I believe it helps. When I found that cities like Birmingham and Sheffield and Glasgow in Scotland, had a load, 45 per cent of which was industrial, evidently there was some concentrated work and cooperation. I believe that it will be to our mutual advantage if in the coming

year we have a closer cooperation between the manufacturers and the gas men. Let us recognize some of the things that Mr. Loebell has asked for today.

In the electric companies we have the great General Electric, Westinghouse and the big companies to put out electrical equipment. I believe the gas man, and especially the industrial gas man, should pay a good deal of attention to the industrial appliance man and recognize him and not be frightened when he tells us that an appliance is going to cost \$2,000 or \$3,000, if he has the article. Anybody in the room who has paid any attention to the sale of industrial electrical equipment knows the prices they demand. They do not spare any expense but they sell it. I want to encourage the industrial appliance manufacturers to make the best appliances that they can make, and I want to ask the gas man, and particularly the men in the industrial end of our business, to recognize that fact and not be afraid to ask a proper price for the appliance.

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"'Old man! old man! for whom digg'st thou this grave?"

I asked as I walked along;

For I saw, in the heart of our City streets,

A dark and busy throng.

"'Twas a strange, wild deed! but a wilder wish

Of the parted soul to lie

'Midst the troubled numbers of living men,

Who would pass him idly by!

"So I said, 'Old man, for whom digg'st thou this grave,

In the heart of our busy town?"

And in deep-toned voice the digger replied:

'We're laying a gas pipe down!'"

## INDUSTRIAL GAS SECTION

H. H. CLARK, Chairman

H. O. LOEBELL, Vice-Chairman

C. W. BERGHORN, Jr., Secretary

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CLARK, H. H., Chicago, Ill. (Illinois)  
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THOMPSON, W. D., Hammond, Ind.  
YEATON, G. D., Providence, R. I. (Gas Sales of N. E.)  
YOUNG, A. W., Knoxville, Tenn. (Southern)  
YOUNG, R. R., Newark, N. J. (New Jersey)

## Program of the Industrial Gas Section for 1924

AT THE MEETING of the Managing Committee of the Industrial Gas Section, held at Association Headquarters on November 20, 1923, it was agreed that the work of preparing the seven industrial booklets should be continued by the present sub-committees which consist of the following:

Wholesale Baking—H. M. Henry and A. A. Schuetz.

Steam Boilers—H. Vittinghoff and J. F. Reynolds.

Large Volume Water Heating—W. T. Rasch and R. E. Ramsay.

Hotel and Restaurant Uses—J. P. Leinroth and J. B. Allington.

House Heating—E. D. Milener and F. M. Rosenkrans.

Combustion—H. O. Loebell, J. B. Allington, H. Vittinghoff, F. F. Cauley and N. T. Sellman.

1000 Uses for Gas—H. H. Clark and D. S. Harding.

The work on the above booklets has progressed far enough so that the Executive Board approved the appro-

priation required to secure the services necessary to edit and arrange the material gathered by the various committees for publication in the booklets. With the additional help available, new work can be undertaken and six more industrial booklets are to be published. The new subjects are as follows:

1. Soft Metal Melting (including non-ferrous metals).

A reference booklet on the methods used and a compilation of the necessary data for the installation of gas fired equipment for soft metal melting.

2. Forging and Heat Treating.

Particular reference to the desirability of gas over other fuels in view of the ease of operation and uniformity and accuracy of temperature control.

3. Drying (Core Baking, Japanning, etc.).

Both high and low temperature drying, as well as work on the air requirements for efficient results.

4. Ceramics (Enameling).

Here again the desirability of gas

over other fuels is evident. Direct and indirect fired ovens.

#### 5. Food Products.

Application of gas fuel in the preparation and manufacture of food products.

#### 6. Tank Heating.

Both internally fired types, for various chemical solutions, as well as water heating where space is the important factor, and externally fired types are to be considered.

Of the above subjects, it appears that house heating has caused the most widespread interest from every point of view—the increased use of gas bringing up the plant load factor, the sale of the appliances and the possibility of developing equipment for the conversion of existing coal boilers. Committees are to be appointed from the Industrial Gas Section to cooperate with similar committees from other sections in order to further the study of house heating by gas; and because of the evident relation of industrial gas utilization with rate structure, it was decided to recommend Mr. H. H. Clark as a representative of the Industrial Gas Section on the Rate Structure Committee.

With the growing importance of industrial applications of gas, the need for trained industrial gas men is evident. To interest the engineering students in this field, a committee was appointed to prepare and submit a plan to the Committee on Cooperation with Educational Institutions for the developing of summer courses at colleges and universities planned particularly for those desirous of entering the industrial gas field.

In addition to educational work at colleges and universities for the spreading of industrial gas information, the development of the "Industrial Gas Magazine" has proven of great value in

disseminating information of interest to both industrial gas men and to prospective users of gas fired equipment.

It is presenting in graphic form innumerable applications of gas as an ideal fuel for many industries. Cooperation in the form of material for publication in the magazine is being urged and efforts will be made to publish articles of special interest to a particular trade, in the journal representing that trade. Illustrations and pertinent data are to be published as heretofore in the A. G. A. Monthly.

A committee of five will develop the Section's program at the 1924 Convention. On account of the mutual desire for cooperation between the industrial gas man and the appliance manufacturer, a committee of three manufacturers, representatives on the Managing Committee, will discuss and plan that part of the program of the 1924 Convention of special interest to the manufacturers. The coming convention is to be patterned after the 1923; and a paper is to be presented at a general session; a paper is to be presented at the joint meeting of the Industrial Gas Section and the Commercial Section; and it is planned to hold two afternoon sessions at which no more than three papers are to be presented at each.

The convention committee has under consideration papers on the following subjects:

"The Comparative Value of Fuels," to be prepared with assistance of representatives of electrical, oil and gas industries; and

"House Heating," treating the subject for the gas companies with the purpose in mind of carrying a message on the advisability of approving more liberal expenditure of funds to demonstrate

and convince the prospective consumer of the desirability and advantages of gas as fuel.

In order to interest the industrial appliance manufacturers in exhibiting at the next annual convention a committee of three was appointed. During the discussion, attention was called to the fact

that a constitutional requirement limited the exhibits to member companies, but it was also urged that, since the manufacturers of industrial gas appliances had done so much for the introduction of gas fuel in the various industries, that this cooperation was worthy of its just reward in reciprocation.

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## **American Gas Association Endorses Tax Reduction**

The following resolution, passed by the Executive Board of the American Gas Association on November 21, 1923, was forwarded to the President of the United States, the Secretary of the Treasury, the Chairman of the Finance Committee of the Senate and the Chairman of the Committee on Ways and Means of the House of Representatives.

**RESOLVED:** The Executive Board of the American Gas Association heartily endorses the recommendation of the Secretary of the Treasury of the United States of America designed to affect a substantial reduction in taxation.

**RESOLVED,** further, that copies of this resolution be sent to the President of the United States of America, the Secretary of the Treasury, the Chairman of the Finance Committee of the Senate, and the Chairman of the Committee on Ways and Means of the House of Representatives.





## Gas Fired Rivet Heaters

Convenient method of heating rivets for bull riveting machine.  
No bother with operating air blast or supplying coke.

Capacity 400 lbs. of rivets per hour.

Gas consumption 400 cu. ft.-hr.

For more detailed information apply to A. G. A. Headquarters.

## COMMERCIAL SECTION

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PHERICIS, C. R., Green Bay, Wis. (Wisconsin)  
QUINN, JOHN J., Quincy, Mass. (Gas Sales of N. E.)  
RANCH, W. T., New York, N. Y.  
SMITH, D. B., Baltimore, Md.  
SMITH, W. L., Battle Creek, Mich.  
VINCENT, G. L., Syracuse, N. Y.  
WEISER, J. A., York, Pa.

## The Answer to an Important Question

**Y**OUR ATTENTION is directed to the association's efforts to compile statistics covering the annual sales of gas and appliances per meter and especially to one phase of this matter which seems to be misunderstood or at least underestimated.

We refer to the statements made as to the varying conditions under which gas companies are operating. We realize fully that there is a variable factor here and that those companies which have, over a period of years, actively pushed the sale of appliances, backed up with consistent and well-planned publicity, may not therefore be able to show the large sales of appliances per meter per year as do those companies which have been more or less inactive over the same period but who have now adopted a policy of intensive merchandising and advertising.

Let it be understood that these latter are the very companies we had hoped to stimulate to greater activity. If we

have succeeded in injecting this "new lease of life" germ where it will bring results, we are more than satisfied in having initiated something of a stimulating nature.

Our other hope was that the plan would result in a greatly increased sale of gas on a profitable basis—which after all is by far the most important question before us.

Member companies have again been requested to supply association headquarters with their monthly gas and appliance sales per meter for the twelve months' period beginning with September 1, 1923. The response has been so generous that we feel that such similar information collected last year has been found valuable and inspirational to greater effort.

The standing of the ten leading companies in the Northern and Southern groups for the two months' period of September and October, 1923, follows:

		<i>Meters</i>	<i>Appliance</i>	<i>Gas</i>
			<i>Sales</i>	<i>Sales</i>
<i>Northern Group</i>				
1	Toledo Edison Co., Toledo, Ohio	8,191	\$4.65	6,827
2	Lebanon Gas & Fuel Co., Lebanon, Pa.	1,280	2.88	8,809
3	Elkhart Gas & Fuel Co., Elkhart, Ind.	5,896	2.71	5,647
4	Madison Gas & Elec. Co., Madison, Wis.	11,082	2.23	8,156
5	Danbury & Bethel Gas Lt. Co., Danbury, Conn.	5,541	2.04	4,803
6	Concord Gas Co., Concord, N. H.	4,539	1.96	4,893
7	Illinois Power & Light Corp., E. St. Louis, Mo.	12,117	1.82	5,699
8	Elmira Water Light & R. R. Co., Elmira, N. Y.	8,909	1.72	8,107
9	Wilmington Gas Co., Wilmington, Del.	22,807	1.71	6,581
10	Gardner Gas, Fuel & Light Co., Gardner, Mass.	1,484	1.69	3,783
<i>Southern Group</i>				
1	Knoxville Gas Co., Knoxville, Tenn.	4,868	4.61	6,423
2	Columbus Elec. & Pr. Co., Columbus, Georgia	2,798	4.05	4,879
3	Rocky Mount Public Wks., Rocky Mount, N. C.	2,455	3.13	6,613
4	Gastonia & Suburban Gas Co., Gastonia, N. C.	793	2.74	4,050
5	Peoples Gas Co., Port Arthur, Tex.	1,139	2.60	4,686
6	Florence Gas & Fuel Co., Florence, So. Car.	785	2.22	4,935
7	South Carolina G. & E. Co., Spartanburg, So. Car.	1,598	2.21	5,544
8	Roanoke Gas Light Co., Roanoke, Va.	6,830	1.87	6,191
9	Baton Rouge Elec. Co., Baton Rouge, La.	2,342	1.71	4,453
10	Savannah Gas Co., Savannah, Ga.	9,758	1.52	5,040

\* \* \*

## Enroll in the Industrial Gas Section

The present Industrial Gas Section was organized around the former Industrial Committee of the Commercial Section as its nucleus.

There is a great deal of common interest between the two sections. The work of the Industrial Gas Section will be of great value to the members of the Commercial Section and the cooperation of this section with the Industrial Gas Section will be most effective for the successful accomplishment of any undertaking.

Accordingly the Managing Committee of the Industrial Gas Section invites all individual members now registered in the Commercial Section to also register in the Industrial Gas Section.

As provided for in the constitution, a charge of fifty cents per year is made for such additional registration. A letter from members of the Commercial Section addressed to headquarters, expressing desire to register in the Industrial Gas Section and accompanied by fifty cents will confer such registration.

# GAS SALES STIMULATION

*Recommendations of*  
COMMERCIAL SECTION FOR JANUARY, 1924



## A New Merchandising Service

Reports indicate that 75 per cent of domestic customers are unprofitable!

Again, our Gas Appliance Sales Contest showed that an alarming difference existed in the annual sales per meter between the leaders and the laggards. Why should one Illinois member with 15,000 meters sell \$14.64 worth of appliances per meter for one year, while another of the same size sells but \$3.60 in a year?

The answer is condensed in a single word: **MERCHANDISING.**

Your Commercial Section is planning to cultivate every possible domestic outlet for the use of our product and to extend gas service to the great undeveloped markets available to us. It is working on a program which will pay profits to every subscriber.

Wait and **WATCH** for the mailings that will announce this new service. Possibly no announcements of greater moment have ever been mailed from the Commercial Section. Instruct everyone in the Sales Department, everyone interested in bettered business, to study the new announcements and to look forward, with eagerness, to the first elements of the **NEW MERCHANDISING SERVICE.**

IF IT'S DONE WITH HEAT



YOU CAN DO IT BETTER WITH GAS

**The First of the New Sales Bulletins  
Announcing the New Merchandising Service**

# Associations Affiliated with A. G. A.

## Canadian Gas Association

Date of Affiliation—Mar. 25, 1919.  
Pres.—C. A. Jafferis, 265 Front St., E., Toronto, Ont., Canada.  
Sec.-Tr.—G. W. Allen, 7 Astley Place, Toronto.  
Conv., 1924.

## Empire State Gas and Electric Association

Date of Affiliation—Nov. 21, 1919.  
Pres.—M. J. Brayton, Utica Gas & Electric Co., Utica, N. Y.  
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.  
Annual Meeting, 1924.

## Illinois Gas Association

Date of Affiliation—Mar. 19, 1919.  
Pres.—Robert B. MacDonald, Peoples Power Co., Moline, Ill.  
Sec.-Tr.—R. V. Prather, 205 Illinois Mine Workers Bldg., Springfield, Ill.  
Conv., Hotel Sherman, Chicago, Ill., March 26, 27.

## Indiana Gas Association

Date of Affiliation—April 24, 1919.  
Pres.—L. Fitzgerald, Gary Heat, Light & Water Co., Gary, Ind.  
Sec.-Tr.—E. J. Burke, Citizens Gas Co., Indianapolis, Ind.  
Conv., 1924.

## Iowa District Gas Association

Date of Affiliation—May 21, 1919.  
Pres.—Charles Smith, Yankton Light & Heating Co., Yankton, S. D.  
Sec.-Tr.—H. R. Sterrett, 331 Seventh St., Des Moines, Ia.  
Conv., 1924.

## Michigan Gas Association

Date of Affiliation—Sept. 18, 1919.  
Pres.—Geo. H. Waring, American Public Utilities Co., Grand Rapids, Mich.  
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.  
Conv., 1924.

## Missouri Association of Public Utilities

Date of Affiliation—June 18, 1920.  
Pres.—H. C. Blackwell, 1130 Grand Ave., Kansas City, Mo.  
Sec.-Tr.—F. D. Beardslee, 315 N. 12th St., St. Louis, Mo.  
Wiley F. Corl, Chmn., Affiliation Com., Missouri Utilities Co., Mexico, Mo.  
Conv., 1924.

## New England Association of Gas Engineers

Date of Affiliation—Feb. 19, 1919.  
Pres.—C. E. Falge, C. H. Tenney & Co., Boston, Mass.  
Sec.-Tr.—J. L. Tudbury, 247 Essex St., Salem, Mass.  
Conv., Copley-Plaza Hotel, Boston, Feb. 13-14, 1924.

## Gas Sales Association of New England

Date of Affiliation—Oct. 1, 1919.  
Gov.—F. A. Woodhead, 689 Massachusetts Ave., Arlington, Mass.  
Sec.—J. H. Sumner, 719 Massachusetts Ave., Cambridge, Mass.  
Annual Meeting, 1924.

## New Jersey Gas Association

Date of Affiliation—April 25, 1919.  
Pres.—James P. Hanlan, Public Service Gas Co., Newark, N. J.  
Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.  
Conv., Bellevue-Stratford Hotel, Philadelphia, April 9-10, 1924.

## Pacific Coast Gas Association

Date of Affiliation—Sept. 18, 1919.  
Pres.—H. R. Basford, H. R. Basford Co., San Francisco, Cal.  
Sec.-Tr.—W. M. Henderson, 812 Howard St., San Francisco, Cal.  
Conv., Santa Barbara, Calif., Sept., 1924.

## Pennsylvania Gas Association

Date of Affiliation—April 10, 1919.  
Pres.—Grier Herah, York Gas Co., York, Pa.  
Sec.-Tr.—Geo. L. Cullen, Harrisburg Gas Co., Harrisburg, Pa.  
Conv., Bellevue-Stratford Hotel, Philadelphia, April 9-10, 1924.

## Southern Gas Association

Date of Affiliation—May 20, 1919.  
Pres.—E. L. Rieha, 1602 Lexington Bldg., Baltimore, Md.  
Sec.-Tr.—E. D. Brewer, 75 North Mayson Ave., Atlanta, Ga.  
Conv., Bon-Air Vanderbilt Hotel, Augusta, Ga., April 22-24, 1924.

## Southwestern Public Service Association

Date of Affiliation—September 26, 1923.  
Pres.—J. H. Gill, Dallas, Texas.  
Sec.—E. N. Willis, 403 Slaughter Bldg., Dallas, Texas.  
Conv., New Orleans, La., April, 1924.

## Wisconsin Utilities Association

Date of Affiliation—March 25, 1919.  
Pres.—Harold L. Geisse, Wisconsin Valley Electric Co., Wausau, Wis.  
Exec.-Sec.—J. N. Cadby, 445 Washington Bldg., Madison, Wis.  
Conv., Hotel Pfister, Milwaukee, Wis., April 17-18, 1924.

## Geographic Divisions

### Eastern States Gas Conference

Date of Formation—April 11, 1923.  
Pres.—F. H. Gadsden, The United Gas Improvement Co., Philadelphia, Pa.

Sec.-Tr.—L. R. Dutton, Philadelphia Suburban Co., Jenkintown, Pa.  
Conv., Bellevue-Stratford Hotel, Philadelphia, April 9-10, 1924.



## TECHNICAL SECTION

L. J. WILLIEN, Chairman

GEO. H. WARING, Vice-Chairman

H. W. HARTMAN, Secretary

### MANAGING COMMITTEE—1924

BATES, H. E., Chicago, Ill.	LUKE, C. A., New York, N. Y.
BECKFORD, W. C., New York, N. Y.	LYONS, B. F., Beloit, Wis. (Wisconsin)
BROWN, J. A., Jackson, Mich. (Michigan)	MORRIS, W. R., Jersey City, N. J.
BURDICK, R. H., New York, N. Y.	OTTER, C. H., Jr., Plymouth, Mass. (Gas Sales of N. E.)
COOK, H. R., Jr., Baltimore, Md.	PERRY, J. A., Philadelphia, Pa.
CORNISH, R. C., Philadelphia, Pa. (Pennsylvania)	POSTER, R. G., Chester, Pa.
EARLE, W. H., Rochester, N. Y. (Empire State G. & E.)	PRITCHARD, C. R., Lowell, Mass. (N. E. Gas Eng.)
FELDMAN, A. C., Pittsburgh, Pa.	RISHA, E. L., Baltimore, Md.
FREEMAN, F. C., Providence, R. I.	SHAUL, C. D., Terre Haute, Ind. (Indiana)
HADDOCK, I. T., Cambridge, Mass.	VON MAUR, J. D., St. Louis, Mo. (Missouri)
HAUSCHILD, C. J., Moline, Ill. (Illinois & Iowa)	WEAVER, E. R., Washington, D. C.
HOY, C. W., Glassboro, N. J. (New Jersey)	WEBER, F. C., New York, N. Y.
HUMPHREYS, J. J., Montreal, Can. (Canadian)	WHITTAKER, A. D., Atlanta, Ga. (Southern)
KLEIN, A. C., Boston, Mass.	

## Progress Report of the 1923 Committee on Refractories

W. H. FULWEILER, Chairman, Philadelphia, Pa.

THE COMMITTEE'S fundamental object was the finding of some refractory material that could be used for a lining of a water gas generator that while possessing the normal requirements of refractoriness and resistance to abrasion should possess the additional quality that slag would not adhere to it, thus eliminating the necessity of barring down which is expensive, time-consuming and destructive to the lining. It was believed that, if such a refractory could be obtained, increased capacity would be secured together with lower operating costs and a considerable reduction in the severity of the labor of cleaning.

In the 1921 report, the use of magnesite, chromite, mica schist, a special fire clay refractory and two types of silicon carbide brick were reported on. The only favorable reports were received from one of the users of silicon carbide. Since that time, reports have been received on zirkite, and alundum,

both of which gave negative results and, in addition, some three further reports have been received on the use of various types of silicon carbide bricks.

It is believed to be a fair summing up of all of this work to say that with the exception of the silicon carbide brick, about which there seems to be a slight division of opinion, which will be discussed later, that we are not warranted in spending the extra cost of special refractories for use in generator linings, as they do not return a sufficiently greater life.

In connection with the silicon carbide refractories, there are altogether some seven reports, three of which referred to veneered blocks and these are generally held to be unsatisfactory due to lack of mechanical strength. Four reports referred to solid blocks, two of which indicate increased production of gas and decreased cost of cleaning. Two others, while they indicate a small decreased cost

of cleaning in the beginning of the use of the material, it was not felt that the extra installation cost has been warranted by the benefits received.

It has been suggested that probably refractories with higher alumina content than those ordinarily used, if they could be secured at no additional cost or at any rate, with very slight additional cost, might give somewhat better results and members of the Committee have been asked to collect analyses of blocks that they were using. Analyses have been received from the Laclede Christy Company and the Harbison-Walker Refractories Company and some seven determinations in the U. G. I. laboratory with the following results. (Only the Alumina, Silica and Iron are given).

$Al_2O_3$	$SiO_2$	$Fe_2O_3$
19.5%	75.1%	1.7%
30.1	65.3	2.6
32.1	63.4	2.2
35.3	56.8	3.4
35.7	58.5	2.7
35.8	61.2	1.7
36.4	55.8	4.3
37.7	57.4	3.4
39.1	55.4	2.2
39.3	56.0	2.2
39.4	56.6	2.0
39.6	55.6	1.9
39.7	52.0	4.6

From these analyses it will be noted that 40 per cent is approximately the limit for the alumina content and the chairman's own experience leads him to believe that there is some indication that the higher alumina content refractories give slightly better service.

It is understood that there is available a refractory at only a slight additional cost that contains between 50 and 53 per cent alumina and it is believed that it would be very advantageous to make experiments on this grade of material in comparison with other grades which contain slightly less than 40 per cent.

So far as the writer is aware, there are only two new developments in the lining question that are of much promise. One of these has to do with the substitution of a water-cooled bosch, thus eliminating refractories entirely in the clinker zone and the other attempts to do practically the same thing in using an air-cooled refractory built of hollow silicon carbide blocks. Both of these experiments are based on the same general principle that slag will not adhere to a surface that is held below its melting points.

#### MID-YEAR MEETING, NEW JERSEY GAS ASSOCIATION

Public Service Building, Jersey City, N. J.

Wednesday, January 23, 1923.

"Building Service Thru Home Economic Departments"

Miss A. B. Swann, Chairman, Home Economics Committee,  
A. G. A.

"The Importance of the Industrial Load in the Small Gas Company"

J. P. Leinroth

"Building Gas and Gas Appliance Sales with Advertising"

Harry B. Brown, Sales Mgr., Electric Merchandise Service  
Corporation

"The Importance of Using the Best Gas Tubing and How Such  
Tubing is Made"

C. D. Frees, New York Gas Tubing Co.

"Saving Money in Boiler Rooms"

H. H. Ferris

and several other important subjects.

# The B.t.u.—What and Why?\*

C. E. REINICKER

THOSE OF US who are not employed in the engineering or other technical departments of our company are sometimes confronted with what may seem to us to be a mysterious symbol, or a sort of mystic password, composed of three letters. These are B., t. and u.

However, after we know what these letters stand for, and their significance, we find that there is nothing unusual about them, and in this article we shall try to tell, in a brief way, all about B.t.u.'s.

The letters B.t.u. are abbreviations for the words "British thermal unit." A British thermal unit is a measure of heat just like an inch is a measure of length or a pound weight is a measure of weight (mass). Unfortunately we are not able to reduce a B.t.u. to the same visual dimensions as we are an inch or a pound, but a B.t.u. is exactly as definite a measure as is an inch or a pound, as we shall see.

## *What Is A B.t.u.?*

We know that to obtain hot water, it is necessary to apply heat to the water. Usually our interest ceases when the water becomes heated, but if we wished to know how much heat was used, or in other words to conduct an experiment, we would immediately look around us for the means to measure the heat. All that we would require would be an ordinary thermometer and an apparatus for weighing the water.

Now suppose that before we lighted the gas to heat the water we found that the water weighed just one pound, and that its temperature was just 60 deg. After lighting the gas the temperature of the water would rise, naturally, and

when the temperature reached 61 deg. the amount of heat required to produce this rise of one degree in the temperature of the water is what is known as "one B.t.u." When the thermometer read 62 deg., heat equivalent to two B.t.u.'s would have been utilized; 63 deg., three B.t.u.'s, etc. Now we are able to understand what the scientist means when he tells us that "a British thermal unit is the amount of heat required to raise the temperature of one pound of water one degree, measured on an ordinary, or Fahrenheit scale, thermometer." There are other minor qualifications, but for us this definition is sufficient.

If, in our experiment, we had gone further and found from the gas meter that exactly one cubic foot of gas (the quantity of gas which entirely filled exactly a cubic foot of space) had been burned we would have all of the data required to measure the heat value of the gas. We would know then, that one cubic foot of gas, when burned, produced sufficient heat to raise the temperature of one pound of water one degree, or produced heat equivalent to one B.t.u. It would be natural, therefore, to say that this was a gas having a heating value of one B.t.u. per cubic foot.

Let us now go a little further. Suppose that we had 500 pounds of water and we raised the temperature of the water one degree and burned one cubic foot of gas in so doing. From our previous reasoning we would be justified in saying that this was a gas having a heating value of 500 B.t.u. per cubic foot.

While these examples explain to us what is meant by the statement that a gas has a heating value of 500 B.t.u. per

\*Reprinted from the U. G. I. Circle.

cubic foot, our experiment, as we conducted it, would not have given us the exact answer insofar as the heating value of the gas was concerned, since some of the heat produced by combustion would have been wasted. In other words all of the heat produced would not have been utilized in heating the water. Or in scientific terms, the efficiency was not 100 per cent.

Since it is impossible to produce 100 per cent efficiency in such an experiment, we are compelled to cast around for an apparatus in which the gas may be burned so that the quantity of heat utilized may more nearly equal the heat produced.

As we look further into the question, we find that such an instrument, called a calorimeter, or "heat meter," is in use in all of our gas plants. In this instrument practically all of the heat produced is utilized. The length of our article will not permit us to describe a calorimeter in any detail, but it will suffice to say that in a calorimeter the gas burned and the water heated are exactly measured, and the rise in temperature of the water is carefully noted. In order to insure accuracy in the results, the conditions due to atmospheric pressure and humidity and gas pressure and temperature, are taken into account and corrected, together with other corrections, and extreme care is used in all operations. The result gives us an accurate measure of the heating value of the gas.

#### *Why is a Measure of Heat Important?*

Now that we have some idea as to what "B.t.u.'s per cubic foot of gas" means, we are interested to know why it is so important to concern ourselves with a measure of heat. In order to make it clear it will be necessary to look back into the past.

Previous to a hundred years ago,

or thereabouts, our forefathers knew nothing of the convenience and comfort of gas service. Buildings were heated by wood fires burning in each room, and whale oil lamps, or tallow candles were used to produce light. Gas was first commercially used for street lighting and then for the lighting of public buildings and homes, and for this use the gas was burned with a yellow flame from an open flame burner. At first this new light was a competitor of candles, so in order to measure the light-giving quality of the gas, it was stated in terms of so many candles. That is, when the gas was burned under certain standard conditions, the light produced was equal to that obtained from so many standard candles, or its candle power was so much.

For many years gas was used entirely for illuminating purposes, and during that period largely supplanted oil lamps and candles. But about 25 or 30 years ago gas began to be used for cooking and the Welsbach mantle was invented. Gradually the use of gas increased for purposes in which heat, not light, was the prime requisite until, at the present time, gas is used almost solely for its heating content. Consider, if you will, some of its uses. We desire to have hot water, what do we use? The heat in the gas. We cook a meal, what do we use? The heat in the gas. We heat a room. We heat an iron for ironing our clothes. And with a Welsbach light we heat a mantle of rare earths until it becomes incandescent and gives out light. In these operations the light-giving quality in the gas is entirely destroyed, resulting from burning the gas in a Bunsen burner, in which air is premixed with the gas before combustion. In such burners a blue, non-luminous flame takes the place of the familiar, yellow, light-giving flame.

So now we can begin to appreciate how important is the heating quality of gas and how unimportant its light-giving quality, and when we further consider the many uses of gas for industrial purposes, all of which utilize the heat from burning gas, it is easy to see that the first and main quality of gas to be desired is heating value.

### *Heating Value Regulations*

For the reason of its importance as a fuel, in all states in which State Commissions or other regulatory bodies have supervision over gas utilities, such rules or regulations as are in force specify the heating value of the gas as the standard of quality and do not mention candle power. However, it has taken a long time to bring about this condition, and it is interesting to review briefly the history connected with this result.

As early as 1816 Massachusetts passed a candle power regulation, the proper measure of gas at that time, and the City of Baltimore likewise enforced a candle power ordinance during that year. New Jersey passed a law specifying candle power in 1876. Other states and cities likewise followed suit in passing candle power regulations. During that period the manufacture of carburetted water gas gradually supplanted coal gas and since gas of higher candle power could

more readily be made by the carburetted water gas process, these candle power standards were gradually increased from the 12 c. p. of Massachusetts in 1861 to the 22 c. p. of New York City in more recent years.

However, with the growth in the use of gas for fuel, a few men with foresight in the gas industry realized that candle power did not express the quality of gas in terms of its greatest usefulness and began to agitate, both within the industry and to state and city regulatory bodies, a change to the heating value standard. It was a long and hard fight, however, and it was not until 1908 that the first heating value standard was adopted by Wisconsin. Even after the pioneer work was accomplished it was still a long time before there was whole-hearted adoption of heating value standards on the part of the regulatory authorities. It was not until 1922 that the last stronghold of the candle power requirement, New York City, capitulated to the heating value standard.

At the present time, however, practically everywhere heating value standards have been adopted and that quality of gas which is of the greatest importance to the users, heat, is recognized and such quality is expressed in proper terms—that of so many B.t.u.'s per cubic foot.

*IT never yet happened to any man since the beginning of the world, nor ever will, to have all things according to his desire, or to whom fortune was never opposite and adverse.*

*—Burton*



# Standardization of Meters\*

WALTON FORSTALL, Chairman, Committee on Standardization of Consumers Meters.

THIS SPRING I had the pleasure of telling your association what our committee was trying to do towards standardizing meter capacities. Since that time we have presented our first report to the A. G. A. and by adopting our recommendation, it has pointed the way to our distant goal.

This was the recommendation:

Single Diaphragm Type		Double Diaphragm Type	
Case Size	Hourly Capacity	Case Size	Hourly Capacity
5	150-175		
10	250-375		
20	450		
30	600-875	11-C	1100
60	1200-1500	25-C	2500
100	1800	40-C	4000
150	3400		
200	3500	60-C	6000
250	5000		
500	7500-9000	170-C	17000

It is now the duty of every loyal A. G. A. member to buy only meters which fulfill the above requirements. Any member who buys a different or "non-standard" meter is on the defensive. If he believes that his situation is a very peculiar one and justifies a departure from the standards, he should discuss his case with our committee before he feels sure of his position. For instance, if he still wants to buy a 3-light or a 5-light with a capacity below 150 cubic feet, he should understand the reasons that have led the A. G. A. to set a 5-light case as the smallest case size and 150 cubic feet as the least hourly capacity, before he persists in staying out of the fold. These two cases of "non-standard" buying are just a sample of what the meter industry has suffered from the absence of stand-

ards. There are too many fashions in indexes for one thing. The user should appreciate that in the end he pays for every expense due to the existence of many meter patterns. It is high time that the maker tells the user of the advantage both will derive from a standard.

You will appreciate that the case sizes and hourly capacities embraced by the standard include all meters now made except only 3-lights and 5-lights with capacity less than 150 cubic feet. So far we have only standardized present practice and the real hard work of attempting to agree on one capacity for each case size and on the proper number of case sizes, lies ahead of us.

## Present Plans

We are endeavoring through a sub-committee to combine in one case size most of the advantages of both the "A" and the "B" type. By the use in a 5 case, of an 8½-in. diaphragm, there is available a meter of slower than "A" speed, but with "A" capacity. As soon as our sub-committee has agreed on the details of such a meter, and it has received the approval of the main committee, the largest companies will be asked to give trial orders of several thousands in such location. After several years of such trial we ought to be ready to recommend to the A. G. A. a standard 5 case meter.

In the same way the 10 case must be studied and a trial meter adopted. As to the 20 case there is much doubt in the minds of some of us whether that size is really needed. Each of the larger

\*Presented before a meeting of the Pennsylvania Gas Association.

sizes will be taken in their turn, but when you remember that over 90 per cent of all meters are 5 case or smaller, you will realize that this one size is of paramount importance.

Our difficulty in reaching our goal is that the meter companies are so busy supplying meters that they have little time to think of improved design. Also

in the past, the user has either taken what was given him or has asked for some design of his own. Each company in your association can very much help this work of standardization by showing their meter manufacturer that they expect to live up to the new standard and are anxious to have only one capacity for each size case.



## The Story of Our Accounting Department

(Continued from page 26)

division maintains a card record of each item in each stock account. At various times of the year these records are checked with records kept by the local storekeeper.

The Stores Accounting Division compiles journal vouchers for the value of all materials, used or transferred to operating stock accounts, throughout the various company works and also the Peoples Gas Stores and the By-Products Corporation. These journal vouchers are then forwarded to the General Books Division for entry.

This division compiles all trucking costs for cars used by the various companies and also makes up journal vouchers charging the different accounts with this expense.

### *Carfare Is Checked Up*

All the elevated car tickets and surface line car tickets issued to employees and also those sold by our branch stores are checked and accounted for by the Stores Accounting Division. They also account for all the merchandise sales made by the twelve branch stores.

One other big item is the compiling of costs for installing gas service on the premises of our customers and to furnish

the necessary information for billing purposes.

The division is under the supervision of Chief Clerk H. A. Ehrmann and Assistant Chief Clerk T. L. West.

### *The Bill Checking Division*

This Division might be termed the connecting link between the Purchasing Department and the Treasurer's Office. The duties of the Bill Checking Division are to review, and pass for payment, all invoices in connection with purchase orders, and eliminate all differences and discrepancies before vouchers for payment are prepared.

The Bill Checking Division sees to it that every invoice is charged to the proper account so that no material received or expense incurred by one department will be charged to another department or division of the company. An equitable distribution of expense is made possible by this efficient arrangement.

Eight men and women are kept busy in this division through which passes every invoice charged to the gas company and the Peoples Gas Stores.

H. A. Ehrmann is Chief Clerk of the division and T. L. West is Assistant Chief Clerk.

# Employment Bureau

## SERVICES REQUIRED

Wanted by a gas and electric company, young man to do office work who has had experience in ledger work, general routine work, and especially on the complaint or service desk. In reply, please give outline of experience, references and salary expected. Address:  
Key No. 022.

**WATER HEATER SALESMEN WANTED**—A large gas company needs several good water heater salesmen to work on commission basis in Western Pennsylvania. Exceptionally good territory.  
Key No. 026.

**WANTED**—Man for Assistant Gas Superintendent. Water gas only. Approximately 7700 meters. Yearly send out 250,000,000 cu. ft. Should have technical training, as well as practical experience. Excellent opportunity for advancement. Cover details of experience as fully as possible in reply. Also give age and salary expected. Address A. G. A.  
Key No. 030.

**WANTED**—Foreman for main laying gang. Must be experienced in laying 4" to 12" cast iron main and able to handle main repair work on low and medium pressure lines. Location, New Jersey coast. State age, experience and wages expected. Address A. G. A.  
Key No. 031.

**MIDDLE WEST GAS COMPANY**, opening Industrial Gas Dept., desires at least two high grade industrial men. City has diversified list of industrials requiring men of varied experience. Address A. G. A.  
Key No. 033.

**WANTED**—Salesman for a gas company in New England with 2,000 meters. Pay will be on a salary plus commission basis.—Address A. G. A.  
Key No. 034.

**A WELL-KNOWN INDUSTRIAL APPLIANCE MANUFACTURER** has two vacancies for representatives in certain Eastern states. Applicants are requested to forward full details of their experience, sales records and other pertinent information. This is a wonderful opportunity for the right man. Address A. G. A.  
Key No. 036.

## SERVICES OFFERED

**POSITION WANTED**—By-Product, Coke-Oven Executive seeks more responsible connection. Fitted for Chief Chemical Engineer, Assistant-Superintendent or Assistant to Manager. University Graduate. Alexander Hamilton Institute Graduate. Nearly seven years with present 3000 ton plant. Thirty-two years old. Married. Address A. G. A.  
Key No. 151.

**WANTED**—Position of responsibility as Manager or Industrial Fuel Engineer—18 years varied experience in the gas business. References and service record furnished. Address A. G. A.  
Key No. 142.

**ENG.-SUPT.** of one of the largest gas plants in the country would consider change. Desires to locate with company in which opportunities for future advancement are better than in present position. Is a married man. Has technical University training. No particular preference as to location. Address A. G. A.  
Key No. 159.

**WANTED**—Position as manager of small gas plant (about 10,000 meters) or sales manager of larger plant. Can furnish the very best reference.  
Key No. 158.

**WANTED**—Am open for position as general superintendent, engineer or manager of fair sized property. Fifteen years' experience in combination coal and water gas plants. Experience covers vertical and horizontal coal gas installations, also distribution work. At present am managing plant of five million sendout and have been acting a capacity of assistant engineer. Can furnish excellent credentials from present and past employers. Married. Can report with reasonable notice. Address A. G. A. Monthly.  
Key No. 164.

**AVAILABLE**—Man of executive ability, experienced in all phases of the gas business and sales and advertising work including agency work on National accounts. Capable of creating, planning and following through all forms of advertising. Prefer locating in West or South Atlantic states. Minimum salary of \$4,000. Address A. G. A.  
Key No. 167.

**WANTED**—Superintendent of Distribution, seeks similar position high or low pressure. 14 years experience covering all branches of the work, office, field, and shops. Speaks and writes Spanish. Southern part of U. S. or Latin America preferred but not essential. Address A. G. A.  
Key No. 169.

**AM OPEN FOR A POSITION** of greater responsibility. At present, manager of gas company with over 5,000 meters. Technical training, started in as cadet engineer with one of largest operating companies in U. S. Have eleven years' experience in engineering, construction, distribution and manufacturing, and over four years' in commercial, new business and financial as manager. Prefer manager's position in good sized city. Age 40 years and married. Address A. G. A.  
Key No. 170.

**GAS ENGINEER**—Eighteen years' experience in design, construction and operation of gas plants, all departments, manufacture and distribution, also electrical experience in combination plants desires position of responsibility with progressive company. Past six years chief engineer with large gas company. Address A. G. A.  
Key No. 171.

**EXECUTIVE**, with fifteen years' experience in coke oven practice on plants manufacturing surplus gas for city consumption, desires connection with growing public utility either as executive or position leading to same. College graduate, good personality, married. Available on reasonable notice. Address A. G. A.  
Key No. 172.

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